TRRA's automatic mail sorter to save **$1 million** a year, speed deliveries . . . . . p. 20

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November 12, 1962

RAILWAY AGE WEEKLY

Unions switch strategy as 'freeze' drive falters

p. 16

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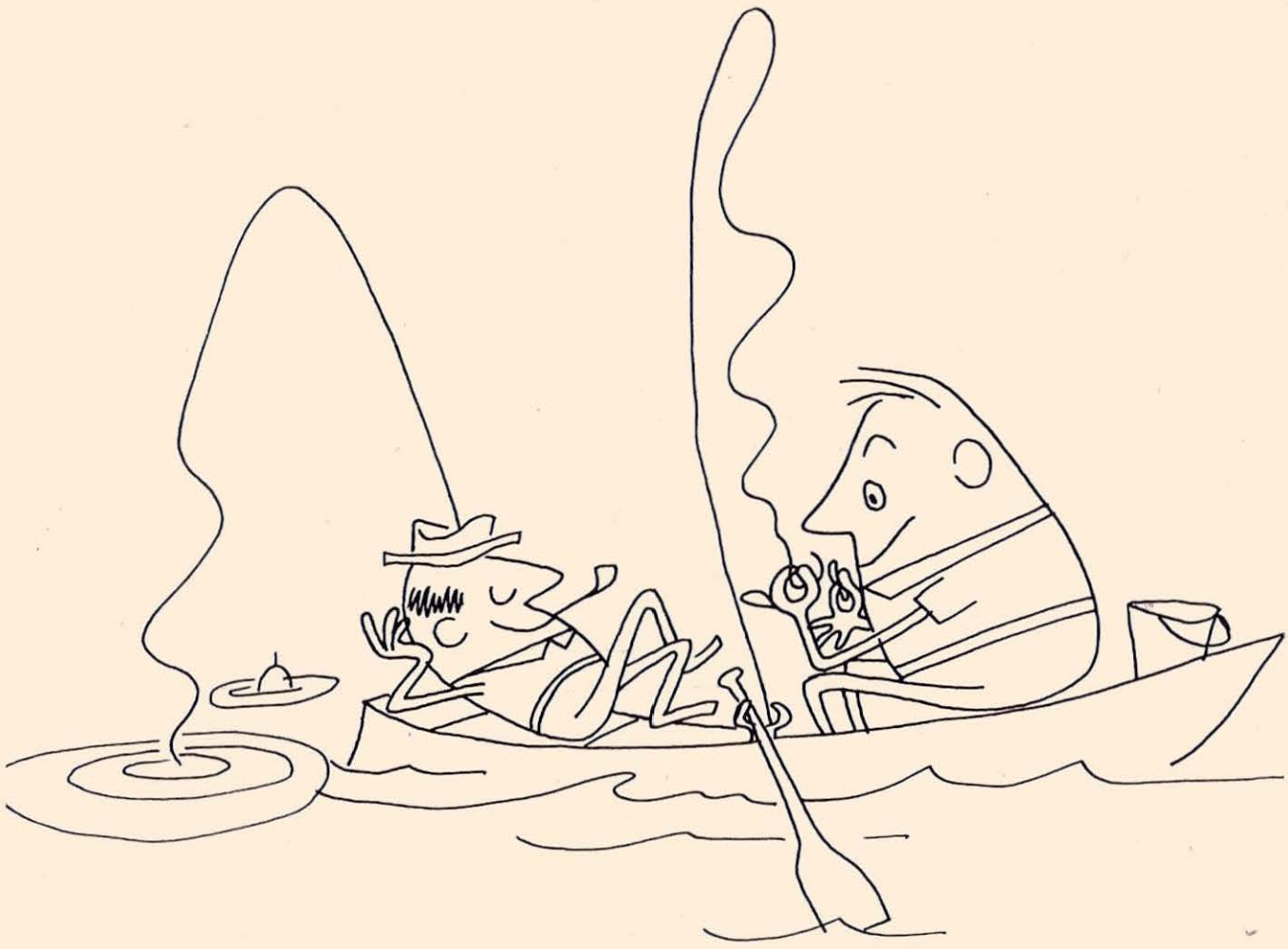

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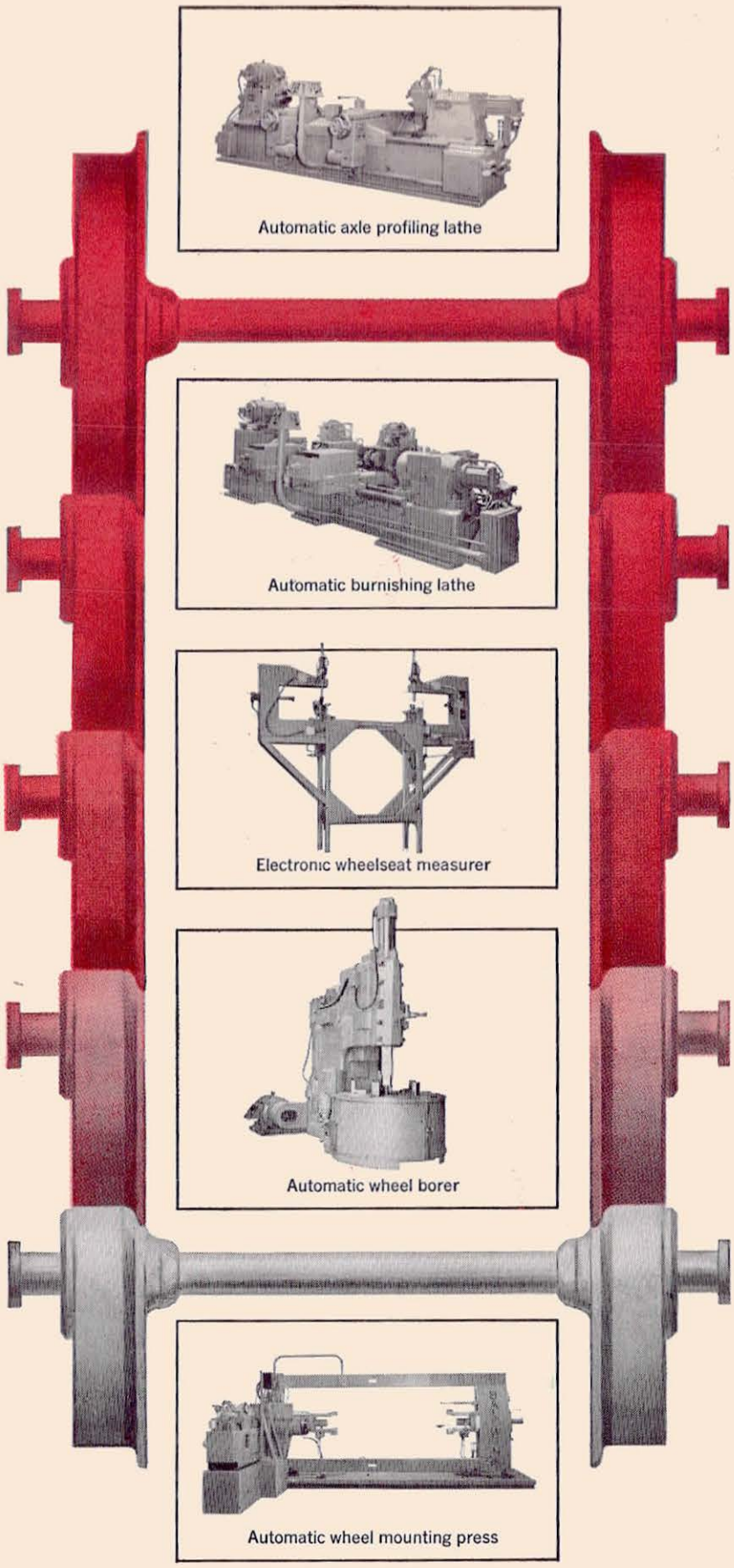

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RAILWAY AGE

WEEK AT A GLANCE

November 12, 1962 • Vol. 153, No. 20

U.S. suppliers seek new world markets

American railway suppliers are taking a long-distance look overseas to size-up effects of the Trade Expansion Act of 1962 and the new strength of the European Common Market ..p. 9

Rapid transit wins San Francisco vote

Bay Area voters have cast yes ballots for a 75-mile, billion-dollar rapid transit network to cope with growing commuter congestion. Construction will begin early in 1964 ....p.14

Unions switch strategy as 'freeze' drive falters

Having failed to win a veto over management's right to determine how many employees are needed, labor organizations are working to increase railroad unemployment benefits ..p.16

TRRA's mail sorter saves $1 million a year

The automatic system—made and installed by Aerojet-General Corp.—will enable the Terminal Railroad Association to cut mail-handling forces by an estimated 45% p.20

Tank car handles hot pitch economically

The continuously heated car keeps pitch in a hot, liquid state, ready for prompt unloading at destination. It cuts unloading time from as much as 48 hours to 15 minutes p.30

What's your hotbox detector problem?

Various questions about hotbox detectors (among them: How are locations chosen for the detectors?) were discussed at the recent Communication & Signal meeting p.33

Can communications be integrated?

Another discussion at the C&S meeting probed a new concept in communications: the electronic switching center which offers promise of improving railroad operations p.34

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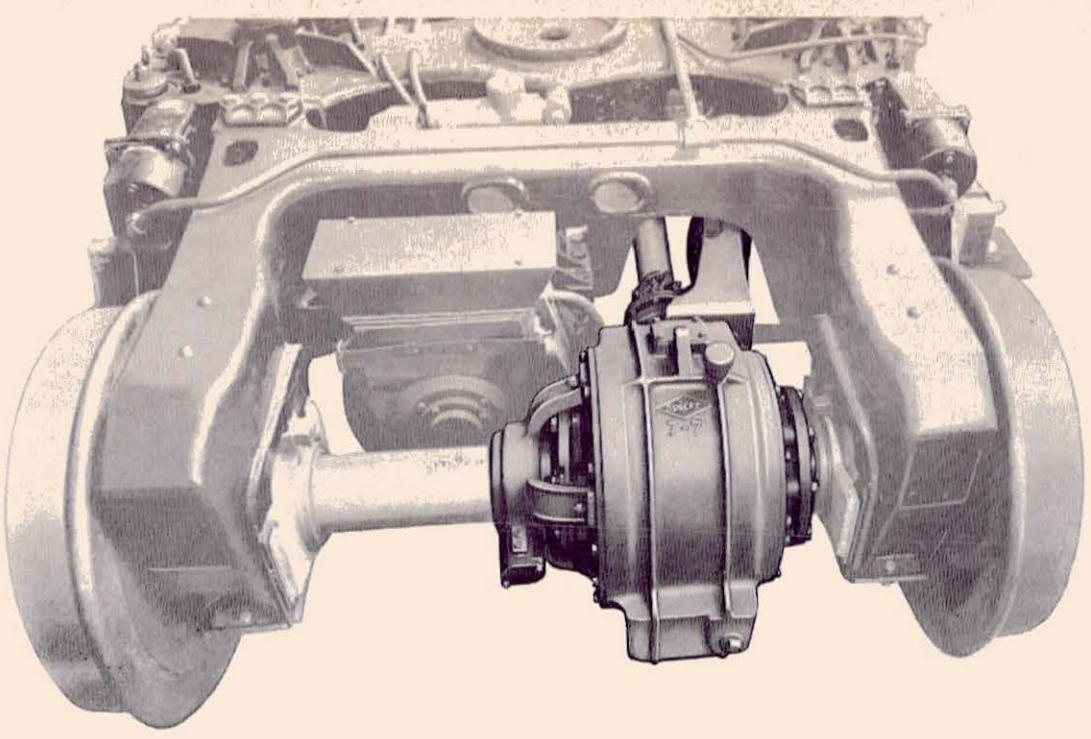

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WEEK AT A GLANCE

Competition's role in hauling utility fuel

Fuel for the generation of electric power is in a state of continuing change, says the author of this special study. How, he asks, will it be hauled most economically? p.36

The Action Page: Mr. Webb—Pro and Con

Although Commissioner Webb suggests that President Kennedy's recommendations for transport reform be discarded, there is urgent need for enactment of the Kennedy program ..p.50

Short and Significant

A new ICC committee on planning . . .

will process planning and policy problems, thus preparing them for Commission action. Members are Commissioners Hutchinson, Webb and Bush.

Suppliers are getting their bids in early . . .

for space at the October 1963 Combined Railway Suppliers Exhibit in Chicago. Included in 110 applications already in are requests for over 4,000 ft of track space.

Highest peacetime passenger revenues since 1929 . . .

are anticipated this year by Northern Pacific. During the first eight months of '62, NP's passenger revenues ran 21% ahead of last year.

Southern control of the Central of Georgia . . .

has been approved by the Interstate Commerce Commission, which found that the transaction will produce improved service and substantial economies.

Current Statistics

Operating revenues	
6 mos., 1962	$4,703,650,132
6 mos., 1961	4,417,470,000
Operating expenses	
6 mos., 1962	3,713,490,394
6 mos., 1961	3,594,534,970
Taxes	
6 mos., 1962	531,960,577
6 mos., 1961	482,452,262
Net railway operating income	
6 mos., 1962	265,495,659
6 mos., 1961	145,845,950
Net income estimated	
6 mos., 1962	171,000,000
6 mos., 1961	62,000,000
Carloadings revenue freight	
44 wks., 1962	24,605,875
44 wks., 1961	24,284,285
Freight cars on order	
Oct. 1, 1962	11,064
Oct. 1, 1961	10,133
Freight cars delivered	
9 mos., 1962	29,652
9 mos., 1961	25,186
Serviceable cars	
Sept. 1, 1962	1,437,496
Sept. 1, 1961	1,470,420
Cars awaiting repairs	
Sept. 1, 1962	135,257
Sept. 1, 1961	153,570

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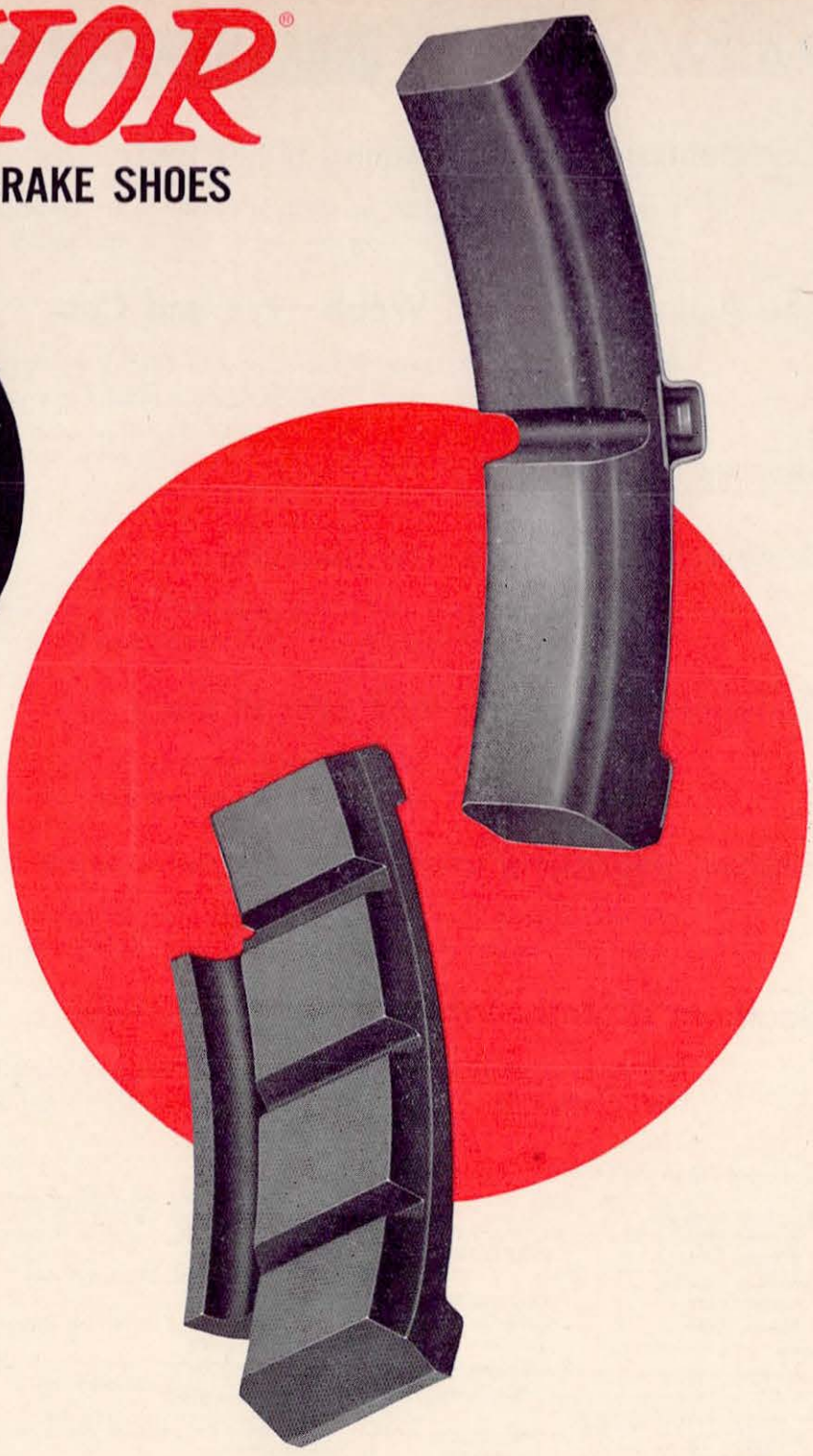

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ONE OF THE Amsted INDUSTRIES

U.S. Suppliers Seek New World Markets

A complicated set of problems faces the average U. S. producer entering (or trying to expand his share of) the railway export market. But nobody's regarding the difficulties as insurmountable. And the stakes are high enough to make an all-out effort worthwhile. By one estimate, the market for rail equipment in South America alone is about $10 billion over the next eight years.

Over the 10 years 1951-60, the total value of U. S. railway equipment in the export market ranged from $97.2 million in 1952 to $240 million in 1958 (when locomotives alone accounted for about $140 million in exports). If there's a trend, it's an upward one. In 1960, value of exports totaled $164.6 million, a figure surpassed only in 1957 and 1958.

Locomotives have been the most popular U. S. product abroad, from a dollar standpoint. Ten-year averages show locomotive exports valued at $56.8 million per year; followed by cars, $29.7 million; rail and track material, $21.2 million; air brake equipment, $6.5 million; signaling and communications equipment, $5.1 million; and wheels and axles, $4.1 million.

Export problems might be divided roughly into three categories—financing, suitability of the product and willingness of overseas purchasers to buy American.

Financing difficulties are mainly a matter of red tape and awkward requirements for arranging loans. European suppliers, for example, can usually offer an export deal which is a complete package, including financing. U. S. suppliers, in contrast, can normally say only that financing is available—not that it definitely can be arranged. Government cooperation—involving an increase in financing help—could go a long way toward removing this handicap to U. S. exporters. So, some suppliers believe, would a firmer policy of specifying buy-American on equipment purchased by foreign countries with funds supplied by U. S. lending agencies.

The problem of standards is a matter of geography and history—as reflected in railroad operating practices here and abroad. Comparatively few nations have operating conditions parallel to those in the U. S., and conditions are reflected in equipment design. Moreover, many railroads around the world were built by the colonizing English—and their standards may differ markedly from U. S. norms. The solution to the problem, as some see it, may lie in greater exchange of information on railroad practices with men directly concerned with running foreign railroads (not politicians) and, perhaps, in an overseas education program on U. S. operations.

The one problem for which there may be no ready answer is the problem of selling to nations with (a) government-owned railways; and (b) an active supply industry. Freer trade in Europe, as promoted by the common market, may ease the situation (with resulting benefits to U. S. companies)—but as of now, foreign governments tend to view state-owned rail lines as showcases for built-at-home equipment. It's essentially a political problem—and it's reflected in the lack of trade with the EEC nations in the rail equipment field (exports in 1960 were valued at only about $1 million).

Despite these handicaps—which the U. S. government could help eliminate—many U. S. suppliers seem confident that an aggressive sales policy will make it possible to strengthen the foreign market for U. S. rail equipment.

On the domestic front, the main worry now seems to be the possibility that tariffs on railway vehicles may be cut sharply or eliminated altogether (rail equipment is on the so-called "zero" list of commodities in which the U. S. and an expanded European Economic Community control 80% or more of world trade). There may be a fight ahead—but the railway supply industry won't be standing alone. About 25 other manufacturing groups are involved in the "zero" list—and few of them are expected to take kindly to elimination of all tariff protection.

At home and abroad, suppliers see new challenges—but they are not challenges without opportunity to make the challenge worth meeting.

Much of the current speculation about world trade in rail equipment traces back to the development and growth of the EEC—and to the Administration's successful effort to push the 1962 Trade Expansion Act through the Congress.

Five years ago, in March 1957, six nations signed the Treaty of Rome and set up the European Common Market. Today, the countries comprising the European Economic Community have achieved a rate of industrial growth

Change and Challenge

American railway supply companies are casting a hopeful—but wary—eye at the world market situation as it's likely to be affected by the Trade Expansion Act of 1962 and the emerging economic strength of the European common market nations.

Suppliers are concerned that tariff reductions may open the way for increased foreign competition here. At the same time, they're waging a determined fight to retain present overseas markets—and create new ones—particularly in the western hemisphere and in under-developed countries around the world.

U. S. railroads, meanwhile, aren't likely to scuttle traditional "buy-American" policies. Chesapeake & Ohio, for example, says it won't consider buying abroad. A few other roads indicate they would—but only if all conditions involved (mainly price) are very, very right.

WATCHING WASHINGTON WITH WALTER TAFT

• **ICC DEPRECIATION RULES** for railroad property will be reconsidered by the Commission in the light of the Bureau of Internal Revenue's new write-off guidelines for income-tax purposes, and the tax credit authorized by Congress to stimulate capital investment. The new guidelines (RA, June 16, p. 9) and the tax-credit legislation (RA, Oct. 8, p. 10) are President Kennedy's investment-incentive program. The ICC's interest is whether these arrangements call for modification of its own accounting rules. Those rules now require railroad net income, as reported to the Commission, to reflect the use of straight-line depreciation applied to the estimated useful life of each class of depreciable property, the estimated useful life being determined by past experience and informed judgment.

WHENEVER more favorable arrangements have been available for income-tax purposes, the railroads have kept two sets of books—one to meet ICC requirements and the other for reporting to BRE. The only ICC departure from its straight-line, estimated-useful-life rule came in the World War II period, when the Commission permitted write-off periods in line with "fast-amortization" arrangements then available to railroads and other industries.

THE BRE GUIDELINES are liberalized arrangements. For all railroad property they provide shortened write-off periods which will be acceptable for income-tax purposes. Cars and locomotives, for example, may be written off in 14 years, compared with former write-off periods ranging generally from 20 to 30 years.

THE TAX-CREDIT PLAN provides that capital outlays for new facilities may be offset by income-tax deductions up to a maximum of 7% of a company's tax liability. This will not be of much help to the railroad industry generally, but it will help individual roads which are relatively well off and thus have substantial income-tax liabilities against which to apply the credits.

INCIDENTALLY, these credits do not provide tax forgiveness. They are deferrals. Property for which they are used may not be included in a company's depreciation base.

THE ICC'S RECONSIDERATION of its requirements is the subject matter of a rule-making proceeding, No. 34178, instituted by a Commission notice of Nov. 5. Questions raised in the notice are whether railroads, taking advantage of the new guidelines and tax-credit plan, shall: (1) record as tax expense for each year the amount of taxes actually payable for the year without allowance for increases in taxes which may have to be paid in later years; or (2) charge current income with the amount of the tax reduction and record such reduction in a suspense account to provide for possible additional future taxes to offset the earlier reductions.

IF a suspense account is favored, another question is posed. It asks whether such an account should be charged with the difference between taxes actually paid and what would have been paid under pre-guideline regulations of the BRE—or with the difference between taxes actually paid and what would have been paid under the ICC's straight-line, estimated-useful-life rule.

PRESENTATIONS of railroads and other interested parties may be submitted to the Commission on or before Nov. 30. After consideration of them, the Commission will enter "such order as may be found appropriate."

four times that of the United States. Production in Common Market countries continues to advance at a rate twice that of the U. S.

While EEC is a U. S. competitor in world markets it is at the same time a growing customer for U. S. production generally. Nearly one-third of all U. S. exports now go to Common Market countries. And Euromart will grow—admission of Great Britain to the fold will raise the population of EEC from 170 million to about 225 million.

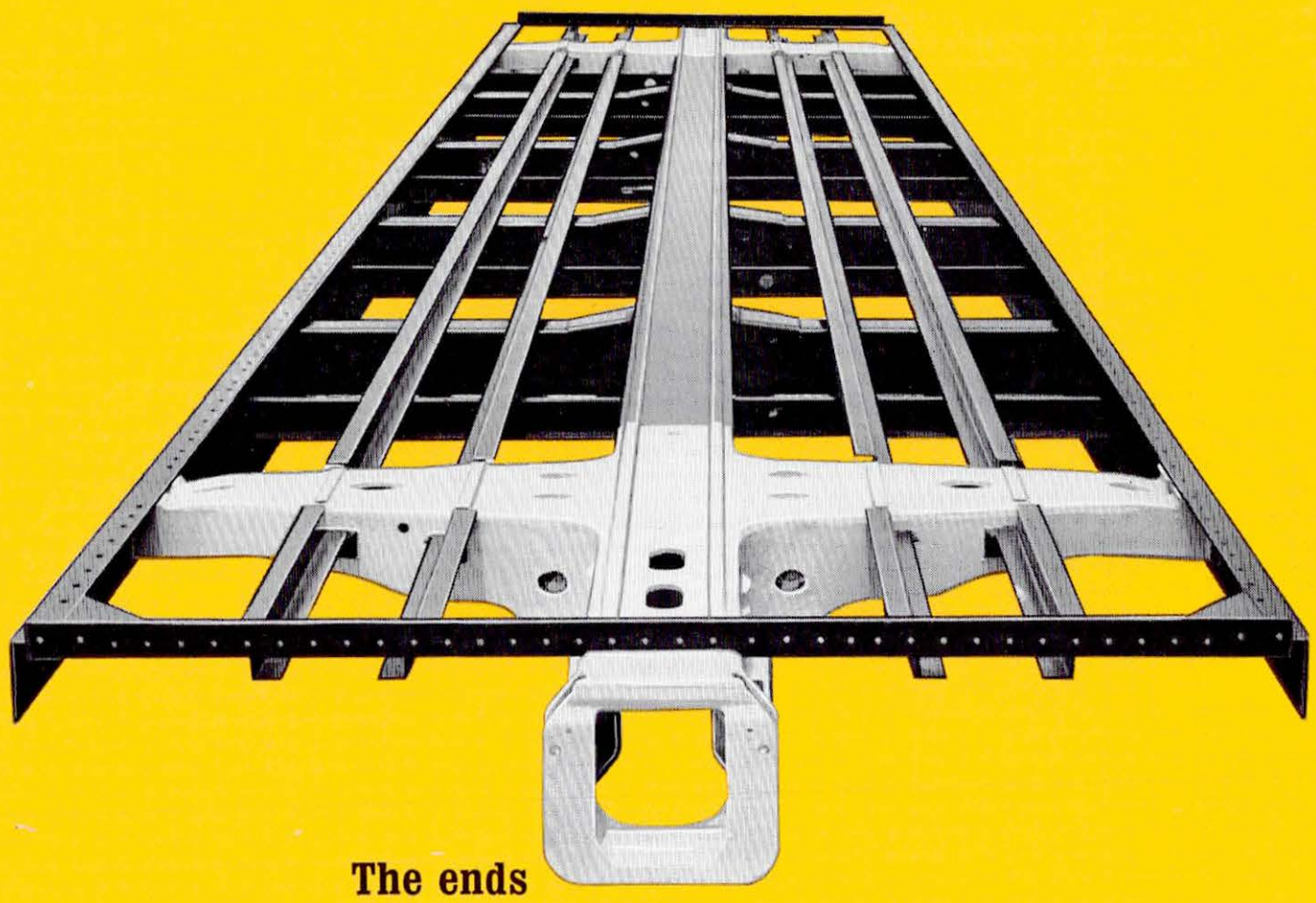
Passage of the Trade Expansion Act of 1962 gave President Kennedy a powerful instrument with which to meet the opportunities and challenges presented by the vast new market EEC has created in Western Europe. The bill gives the President, in effect, general authority to reduce tariffs on broad categories of imports by 50% and to reduce or eliminate all tariffs on items where both U. S. and ECM countries together account for 80% or more of total world production. It also provides for continuation of the "most favored-nation" principle, whereby any tariff concessions would also apply to other trading nations to help expand U. S. trade in non-European countries.

What will these developments mean to railroad suppliers here in the United States? Comments from a cross-section of industry leaders to this question indicate concern for the inroads Common Market exporters may make on the domestic market. They also reveal a readiness to increase efforts to create demand for American industrial production within the Common Market countries as tariff barriers are lifted.

Will reduction or elimination of tariffs on railroad products produced in Europe change the buying habits of American railroads? "Possibly," say some railroad purchasing men who were asked this question. But replies indicate for the most part that railroad equipment will continue to be bought in the U. S. despite the growing capabilities of Common Market manufacturers to scale our tariff walls.

John W. Porter, executive vice president of General Railway Signal and chairman of the Railway Progress Institute's Committee on Foreign trade, says it is "inevitable" that the Trade Expansion Act will affect the U. S. railway supply industry. "The extent of this," he believes, "will depend on the outcome of negotiations called for under the Act between the U. S. government and the European Common Market, and the *quid pro quos* that accrue through the art of compromise will affect U. S. industry as a whole." Mr. Porter says the U. S. exporter will face a "fundamental and possibly uncompromising discrimination" in selling to

(*Continued on page 13*)



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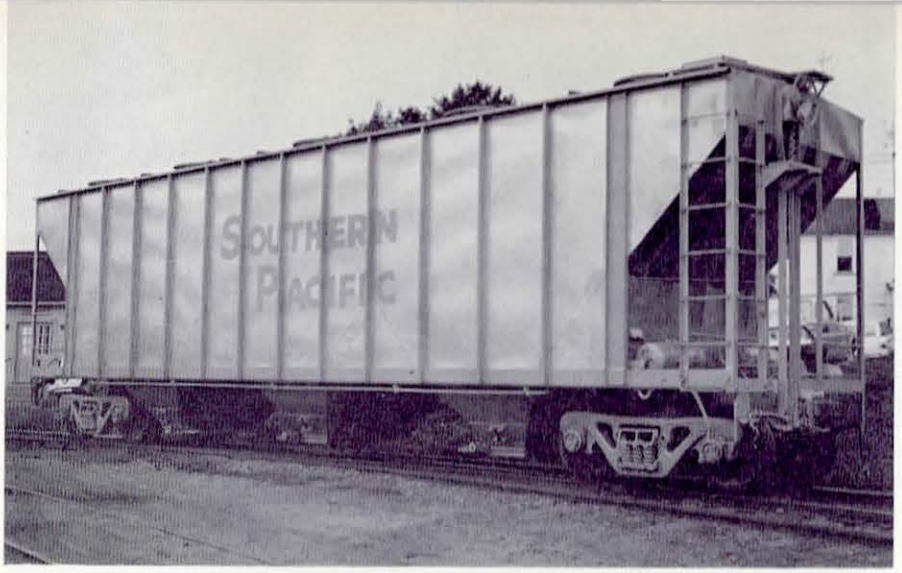


STAINLESS STEEL body simplifies cleaning and makes lining unnecessary when car is to be assigned to handle special ladings.

Stainless Hoppers In Service on SP

Delivery of 40 stainless-steel covered hopper cars for the Southern Pacific has been completed by Greenville Steel Car. Order for these 4,000-cu-ft, three-compartment, 100-ton cars followed a year's testing of a prototype covered hopper with body of the same material built for United States Steel in 1961 and leased to the SP for road service tests (RA, April 17, 1961, p. 16).

Bodies are designed to handle a wide range of corrosive and non-corrosive bulk commodities which would require that conventional cars be equipped with protective linings. Body material is Tenelon, a manganese-chromium-nitrogen stainless steel which contains no nickel and little carbon. This steel, developed by USS, has a corrosion resistance comparable to that of the more conventional stainless types and a yield strength almost twice that of the carbon steels used in carbuilding. Its use permits not only thinner sheets, but also produces smooth, non-porous interior surfaces which are easier to clean and which speed unloading. Unloading can be done by gravity, or pneumatically through six bottom discharge outlets.

The car, weighing 58,500 lb, is about 16% lighter than conventional covered hoppers of the same size. In addition to the Tenelon used for all body parts contacting the lading, Tri-Ten and Cor-Ten are used for structural members. In the prototype car, the center sill is Tri-Ten and sills, posts, bolsters, and carlines are Cor-Ten. The cars are all-welded, with the exception of rivets joining side stakes at the bolsters to the body-bolster web plates. Except for the stainless-steel, cars incorporate no significant design changes.

When the prototype was first put into service last year, a USS spokesman stated that the body material was developed to provide railroads "with a material for carbuilding that is within the limits of what they can economically justify."

Inside length of the three-compartment body is 46 ft 1 in., and inside width 9 ft 11 in. Overall width is 10 ft 7-⅛ in.; height over running boards, 14 ft 6 in., and length over strikers, 46 ft 11-¾ in. Weight of the car is 58,500 lb. Cars have 100-ton roller-bearing trucks.

Rail Transit Called Safest for Cities

Rail rapid transit has proved to be the safest form of transportation in cities, the National Safety Congress was told in Chicago. David Q. Gaul, executive secretary of the Institute for Rapid Transit, told a transit session of the Congress that the accident death rate is only 0.10 per 100 million miles of travel for railroad passenger transit —compared with 2.2 for private autos and 0.15 for buses.

"In other words, this means that there is only one accident death for every one billion passenger miles of travel by railroad passenger transit," said Mr. Gaul.

"It is obvious that a person is safer when he has placed himself in the hands of a motor bus or trolley bus operator who is a professional driver and whose driving habits and safety record are constantly checked, rather than when he is a driver or a passenger in a private automobile.

"And it is even more obvious that a passenger riding in a rapid transit vehicle on a completely grade-separated right-of-way with the same type of professional operator is safer than when he is in a bus or other surface transit vehicle which is exposed to other vehicles on the street."

Mr. Gaul said the safety factor is one reason why the Institute for Rapid Transit anticipates a "substantial expansion of rapid transit lines in the years to come."

He said this expansion will consist of extensions to existing systems and also the establishment of brand new rapid transit lines. He noted that Montreal's first subway is now under construction and added: "We believe that Los Angeles, San Francisco, Washington, Atlanta, Pittsburgh and other cities can be expected to establish rapid transit systems."

New Pipeline Carrying Dakota Oil

First North Dakota crude oil to flow through the recently-completed 373-mile Portal Pipeline (RA, April 9, p. 42) reached Portal's eastern terminus at Clearbrook, Minn., Nov. 1, with an initial flow of 25,000 barrels a day. A Portal spokesman estimated that producers served by the new line will realize an increased net of about 20 cents a barrel due to cheaper transportation.

The Portal system, organized earlier this year by Great Northern, Hunt Oil of Dallas, Tex., and Northwestern Refining of St. Paul Park, Minn., extends from Lignite, N.D., northwest of Minot in the Williston Basin producing area, to Clearbrook, 30 miles northwest of Bemidji, Minn. Gathering systems tied to the main Portal trunk line serve the Newburg, Wiley, Glenburn and Sherwood areas near the North Dakota-Canada boundary. At Clearbrook, the 16-inch main trunk of the system connects with Minnesota Pipeline and with the Lakehead Pipeline. Minnesota delivers to refineries in the Twin Cities and Lakehead serves the Duluth-Superior and Toronto-Buffalo areas.

New Markets For Suppliers?

(*Continued from page 10*)

government-owned European railroads as opposed to the European supplier selling to the privately owned railroad systems in the United States.

Will divergent standards and specifications in the U. S. and European markets present any special problems to U. S. exporters? Mr. Porter says no. "Any difficulties to U. S. suppliers presumably would apply equally to our European counterparts in supplying equipment of U. S. standards to U. S. railroads."

Almost without exception suppliers voice concern over the adverse effect higher U. S. labor costs may have on American efforts to compete in worldwide markets. R. M. Jenner, vice president of Railway Maintenance Corporation, Pittsburgh, says that "U. S. labor costs concern us a great deal when compared to European costs. The general average in the Common Market ($1.04 an hour over all classes of labor) is somewhat offset by slightly higher material costs— but still not enough so that we can be competitive on an equal tariff basis."

Can U. S. productive efficiency overcome the disparity in labor costs? "In our particular business," says Mr. Jenner, "I don't see how U. S. production efficiency can overcome the labor-cost differential. In the railroad supply industry we are governed entirely by the railroads' need for equipment and the money available for capital expenditures on equipment. This makes deep valleys and peaks as far as production is concerned and is an added cost which is very difficult to overcome in the railroad supply business generally."

Mr. Jenner sums up this way: "If trade barriers are lowered on a fairly even basis, we will be faced with more and more foreign competition, especially from the Common Market area."

Railroad purchasing officers, by and large, reflect Mr. Jenner's concern over the fluctuations in demand for railroad equipment. They also indicate a determination to "buy American" unless there are special overriding considerations in specific cases.

Harold A. Berry, manager of purchases and material of the Rock Island, says RI's policy is basically to buy American goods. "However," he adds, "if some foreign goods have obvious technical advantages, are not procurable in the United States and would offer a substantial price benefit, we would consider them."

Pennsylvania Vice President J. B. Jones doesn't believe the new trade bill will change PRR's buying habits, "at least in the foreseeable future." Will PRR buy from foreign suppliers if the price is competitive? "That will depend on the kind of material and how much difference there is in price. In addition to the factors normally considered in determining the most favorable bid, others—such as availability of parts, availability of service and cost of inspection when that is required to assure compliance with specifications—must be brought into the picture when contemplating purchases of foreign-made products. Another major consideration is the effect buying abroad will have on domestic manufacturers and their volume of business. A decline in production in U. S. plants with resultant reduction in their transportation needs could offset many times over a moderate saving in price of material bought abroad."

Howard T. Casey, vice president of Symington Wayne, warns of the dangers U. S. railroad suppliers would face in any free-trade competition with Common Market producers. "Since the early 30's," he notes, "American manufacturers have licensed producers in Europe to provide AAR-design equipment, primarily for their colonies. As a result, if trade barriers were removed through agreement with EEC, licensees could be in a position to sell American standards to this country at prices considerably below our cost of manufacture.

"In the production of major items used by the railroads, approximately four carloads of raw material are required to produce one carload of the finished product. This affects many other industries not directly connected with railroad specialty manufacturing as well as all forms of transportation."

Mr. Casey concludes that railroad equipment "should be eliminated from tariff concessions in any agreement the U. S. makes with EEC."

Elgin, Joliet & Eastern's manager of purchases and stores, F. T. Brandt, indicates that "We prefer to buy material of domestic manufacture and only deviate if the foreign material is of a unique nature, is of definitely superior quality or is priced appreciably lower."

The new trade bill will have no effect on the buying policy of Chesapeake & Ohio, according to C&O Vice President Owen Clarke. C&O, he says, will restrict its buying to American goods.

One major supplier expects that foreign suppliers will have an edge in the American market due to higher U. S. labor costs. He finds it "extremely doubtful, though possible, that America's more efficient production facilities could overcome this disparity in wages. This would be possible *if* the foreign competitor had to comply with all AAR requirements, and *if* orders involved large production runs to take advantage of our automated setups, and *if* cars were required to be assembled by Common Market suppliers abroad and shipped to this country. *If* these conditions prevailed we could probably lick the labor cost disparity with our production efficiency, coupled with their high cost of shipping assmbled units via ocean transportation."

The consensus of industry leaders seems to be that the American railroad supply industry will successfully meet the challenge of Common Market imports and the opportunity of competing within the European Economic Community. General Railway Signal's Mr. Porter puts it this way: "The U. S. railway supply industry has in the past done its utmost to give service and production techniques and equipment to U. S. customers, compatible with its financial and technical ability to do so. It is up to the supply industry to protect its interests in the light of changing international conditions and at all levels of operation, including the Washington scene, with new methods and production techniques and new systems and devices—and in giving the best service possible to the customer."

The European Common Market

The Treaty of Rome, signed by France, Italy, West Germany, Belgium, The Netherlands and Luxembourg in March 1957, formally created the European Economic Community—the Common Market or Euromart. Essentially, EEC is a broad plan to gradually integrate the economies of the six member nations. This is to be accomplished by reducing in stages and finally eliminating trade barriers between member countries. Internal tariffs have already been cut by 50% and a move is under way to increase this reduction to 80% by December 1965, with final abolition of internal trade barriers by January 1967, instead of in 1970 as originally planned.

Rapid Transit Wins San Francisco Vote

► **The Story at a Glance: The San Francisco Bay Area Rapid Transit District (BARTD) got the nod from voters Nov. 6, to build a billion-dollar, 75-mile rapid transit network. Voters in the three-county District (Alameda, Contra Costa and San Francisco) approved a $792-million bond issue that will furnish most of the construction capital needed for the new regional transit system. The money will be repaid over a period of 37 years from property taxes levied uniformly throughout the District. Construction will begin early in 1964 and test operations will probably begin sometime in 1966.**

At the Nov. 6 general election, property owners in the San Francisco Bay Area decided that rapid transit offers the most economical solution to the problem of traffic congestion. By approving a $792-million bond issue to finance the bulk of construction costs of a 75-mile regional transit network, voters, in effect, turned thumbs-down on the alternate plan to cope with commuter congestion—the "all automobile" plan of more freeways, more bridges and more parking facilities.

(In Georgia, transit fared less well at the polls. A constitutional amendment that would have cleared the way for Atlanta to develop a rapid-transit system appeared headed for defeat. With 736 out of 1,835 precincts reporting, the vote was 58,539 for, 67,593 against. This vote came mainly from urban areas, where observers felt the amendment would fare best. It was unlikely that the rural vote would reverse the trend.)

The Bay Area rapid transit system will cost the typical San Francisco homeowner (average assessed property valuation: $4,000) about $5.60 during the first year of construction. The levy will reach a peak of about $27 in 1972 when the entire system is completed. The maximum represents a tax rate of 67 cents per $100 of assessed valuation. This will taper off in subsequent years and Federal aid legislation now being considered could substantially reduce the cost to individual taxpayers.

In addition to the capital provided by the bond issue, BARTD will also get $133 million from surplus Bay Bridge tolls to build a four-mile trans-Bay underwater tube connecting San Francisco and Oakland. Legislation already enacted by the state legislature to "divert" highway funds for this use was supported by, among others, the Automobile Club of Northern California and the Standard Oil Co. of California. Another $71 million, to be used for the purchase of rolling stock, will come from future revenues of the transit system itself. It is expected that revenues will also pay the system's entire operating and maintenance costs.

Routes of the proposed system were laid out to follow the Bay region's most heavily used traffic corridors and to provide rapid transit as a regional, rather than local or urban, arterial network. Depending on local conditions of terrain and urban development the lines will travel above, below and along the ground. Included in the network will be 16 miles of subways and tunnels, 31 miles of aerial lines, 24 miles of new surface lines and the 4-mile-long underwater trans-Bay tube. Multi-level subways and underground pedestrian mezzanines will be located in downtown Oakland, Berkeley and San Francisco. The cut-and-cover method will be used to dig the subways where the high degree of urban development prohibits construction of less costly facilities.

Market Street subway

In San Francisco the subway line will be routed along Market Street and then through the Mission District. Provision will be made for a separate underground level for San Francisco's existing streetcar lines. The median strip of the new Southern Freeway will be utilized for rapid transit traveling southward to its presently planned terminus in Daly City.

As originally planned the Peninsula Line would have run south from Daly City through San Mateo county to Palo Alto. But supervisors in San Mateo county decided last December that the financial burden on their taxpayers outweighed any possible benefits and rejected the proposed Peninsula Line.

Plans to run a line north from San Francisco over the Golden Gate Bridge and through San Rafael to Santa Venetia in Marin county also had to be dropped. An argument developed over BARTD's proposal to run its trains over Golden Gate Bridge. District directors charged "politics" when Marin county withdrew from the original five-county Bay Area Rapid Transit District.

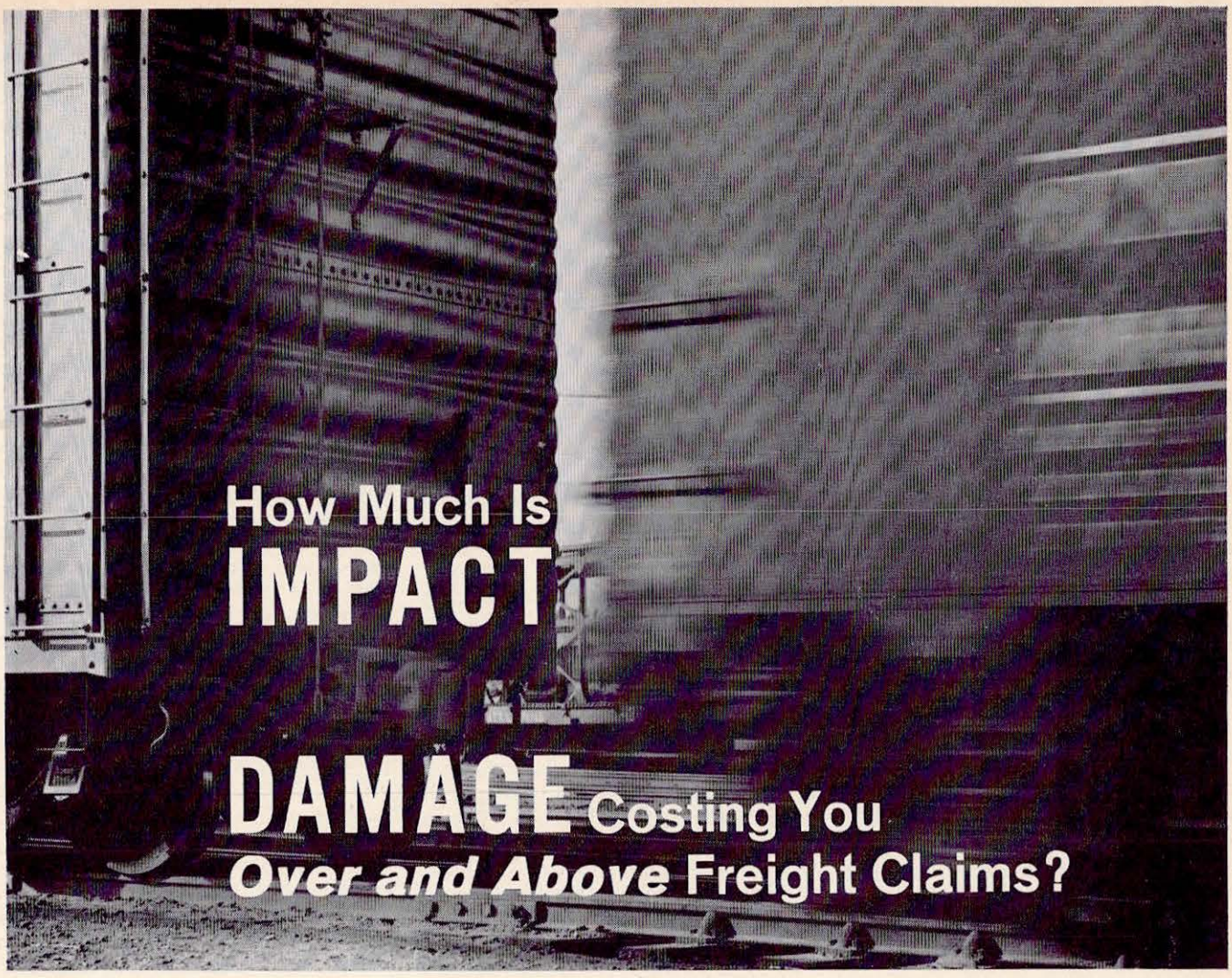
The original plan for rapid transit on the east side of the Bay remains unchanged. Three lines will branch out from Oakland—north to Richmond, east to Concord and south to Fremont. Subways in Oakland will be located beneath Broadway and Eighth Street and the Berkeley subway will follow Shattuck Avenue.

Final details still have to be worked out on design of rolling stock but plans call for computer controlled, lightweight electric trains that will operate at speeds of over 70 mph and maintain schedule speeds, with stops, of approximately 50 mph. Recommended is a 38-ton, 68-foot car, seating 76 passengers, with two standard-gage four-wheel trucks and steel wheels on steel rails. Rubber tires had been considered for the cars but engineers ruled them out as too expensive. Rubber-tired operating costs would be higher and steel-wheel systems can now be made as quiet as rubber-tired systems.

When completed, the BARTD rapid transit system will be a completely automatic operation governed by intermittent wayside transmitters or by a continuous wire along the track. An "attendant" will be on each train for psychological reasons and to supervise in emergencies.

Timetables will not be necessary since trains will run on a minimum of 90-second headways during rush hours and no less frequently than every 15 minutes during the off-peak periods. Station stops will be limited to only 20 seconds. A computer-tabulating device will automatically record each passenger's entrance and exit through station turnstiles and utilize individually-coded credit cards. The Bay Area commuter of 1966 will be billed automatically for his total mileage at the end of each month. Newly developed currency change-making devices will be installed at each station to facilitate collection of cash fares. Modern passenger stations, most equipped with parking facilities, will be spaced along the entire regional network, close enough to provide convenient access, yet far enough apart to allow for high travel speeds.

Fares will also be competitive with the out-of-pocket costs of driving a car (gas, oil, tire wear, parking and tolls). Tickets will range from a local fare of 25¢ to a 95¢ terminal-to-terminal fare. The San Francisco-Oakland tube trip would cost 35¢ and will cut the present bridge transit time from 22 minutes to eight minutes.



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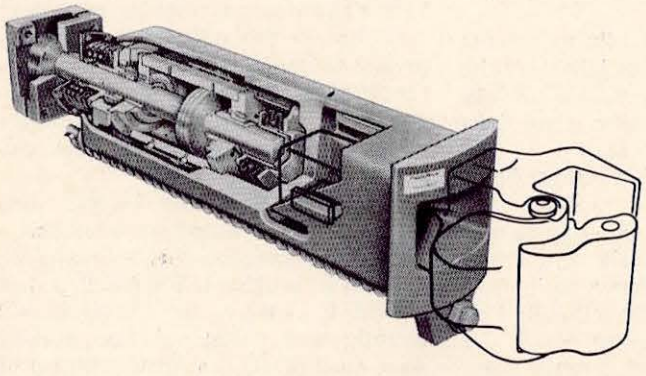

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Unions Are Switching Strategy

Labor organizations have failed to win a veto over management's right to determine how many employees are needed. Union demands now aim at increasing already-liberal RR unemployment benefits—by large-scale extension of the Washington Job Protection pact

Rail labor leaders used to pound the table for higher wages, better working conditions, more liberal rules for their members. Sometimes they still do. But their real problem today is even more basic than a fatter pay check. It's the very existence of a pay check, whatever its size.

Today's big issue is called by many names—job security, job stabilization, job freeze. The key word is "job"—and it represents perhaps the major management-labor problem, not just of railroads, but of American industry generally.

Technology undreamed of 30 years ago has been blamed for making thousands of railroad jobs obsolete. Declining traffic has forced abolition of others. Union persistence in demanding wage increase after wage increase, fringe benefit after fringe benefit, has paid off in steady increases in income for rail workers—but there are far fewer of them around to enjoy it. Rail employment—totaling 1.2 million jobs just 10 years ago—now hovers around 700,000.

Causes of the decline have been debated at length without much agreement. Union leaders talk of automation, mechanization — and inevitably they steer the discussion toward questions of "productivity." Any study of traffic figures, however, puts the finger on declining business as a major—perhaps the major—cause of job cuts. Railroads have lived with technological change since the first rail was laid. It's become a bogeyman only since competing forms of transportation—aided by governmental favoritism—began siphoning off rail traffic. Had railroads been able to maintain the share of intercity freight traffic they held just a dozen years ago, for example, they'd have racked up an additional 170.2 billion ton-miles last year —and thousands of additional employees would have been working on the railroad.

Rail unions, however, have fought stubbornly to prevent job losses—whatever the cause. Some, like the Brotherhood of Maintenance of Way Employes, have tried to avoid a crisis atmosphere in their efforts to win some acceptable stabilization or security arrangement. Others, like the Order of Railroad Telegraphers, have lashed out broadly with demands that propose a virtual union veto over management's right to say how many telegraphers it needs to employ.

Neither approach has been "successful." A stabilization agreement entered into by the BMWE and the carriers three years ago hasn't stopped the attrition of fulltime M/W positions. The ORT's "freeze" demands have won no support whatsoever. Telegraphers agreed, finally, to a controlled-attrition formula on Southern Pacific—but even that plan was regarded with disfavor by emergency boards considering similar demands made of Chicago & North Western and New York Central. C&NW weathered a month-long strike and had reaffirmed its right to abolish unnecessary jobs (on 90 days' notice to the union). ORT got no freeze. It did secure a schedule of benefits for employees laid off as a result of elimination of positions.

ORT President George E. Leighty indicated that he found the settlement agreeable and satisfactory—that it gave telegraphers "the best protective conditions in effect anywhere."

That post-strike comment probably points the way to future union strategy (at least so far as the non-ops are concerned):

Labor will fight doggedly to prevent management from cutting jobs—but the basic aim, ultimately, will be to win bigger benefits for the men whose jobs are lost.

Most of the available evidence bears this out:

- Emergency boards—particularly those in the ORT-C&NW and ORT-NYC disputes—have shown no inclination whatsoever to saddle railroads with unneeded employees, or to permit the union to exercise control over the number of employees retained. In both cases, however, protective features were recommended.
- New demands of six shopcraft unions attack railroad contracting-out of work—but, significantly, they also set up the first concerted effort by the six organizations to get protective benefits for furloughed employees akin to those provided by the Washington Job Protection Agreement for employees affected by merger or "coordinations."
- Employee protection is the underlying aim of the unions' anti-merger drive—so the record indicates. Labor opposition to one major consolidation vanished when protective provisions over and above those usually applied were agreed to. Opposition to a second big merger has dwindled noticeably, apparently for the same reason: Security provisions which the unions consider eminently satisfactory have been worked out with the carriers and will be put into effect if the merger is approved by the ICC. Most recently, a union attorney—appearing as the lone opponent of Norfolk & Western's lease of Pittsburgh & West Virginia—conceded that he opposed "only because of procedure." N&W has already signed labor agreements covering P&WV employees in the event their road becomes part of the N&W-Nickel Plate-Wabash hookup.
- Settlement of a long dispute between the Canadian roads and the non-ops hinged on a protection agreement. The parties, working with a unanimous Conciliation Board report, came up with a pact committing both sides to develop a long-range protection program (which is still to be worked out in detail).
- Management recognizes the human problem involved, at the same time it flatly refuses to permit a union veto of recognized managerial rights. C&NW Chairman Ben W. Heineman perhaps phrased it best, regarding the agreement and arbitration award which settled the ORT strike on his company's property: "The right of management to modernize and improve this railroad has been expressly recognized. I would say that the theme of the arbitration results is progress with protection—progress for the railroad and protection for the employees."
- Thoughtful union leaders seem to be taking a temperate approach—one which recognizes that management, too, has its problems. BMWE President Harold C. Crotty, for example, said recently that "what railroad workers want most of all is a greater degree of job security than they enjoy at the present time." Employees who have devoted the greater part of their lives to the industry, he said, "want the assurance that their jobs will not be eliminated virtually overnight. These are assurances which the industry does not give its employees today, and cer-

as 'Job Freeze' Move Falters

tainly this would be a most productive and important area for cooperative action." Then Mr. Crotty added: Railroad workers "want to keep abreast of the improvements in living standards which our nation is providing for its citizens. They want to be upgraded when their duties and responsibilities are increased. They want to be made financially whole when organizational changes in the work force create working conditions which reduce their take-home pay."

● The Presidential Railroad Commission in the work rules dispute came out strongly against any union limitations on management's right to introduce technological changes. But it also recommended broad protective conditions, based on the 1936 Washington Agreement, plus provisions for retraining and preferential hiring. With one major exception—Southern, which had withdrawn from the national rules case to progress its aims individually—the carriers accepted the PRC report in its entirety, though they raised objections to certain recommendations.

In presenting their case to the PRC, the unions proposed a three-point protection plan, to be applied in all cases where the Washington Agreement doesn't apply. They asked that job cuts be limited to normal attrition—but not, in any case, to exceed 5% of June 1960 employment. They proposed establishment of a five-year income protection program, in the form of a displacement allowance (which would be set at the level of earnings during the highest year of the preceding five). They asked that employees be reimbursed for all expenses of moving households or traveling to new job locations; and for all wage loss during transfer and all loss of home value. They proposed a guaranteed annual employment plan.

The PRC summed up the opposing labor and management positions succinctly:

● Union proposals "are all-embracing both in coverage and scope. They would protect against all kinds of change, including those arising from the business cycle and competitive loss of business. They would provide a freeze on jobs for all present employees, guaranteed full-time annual employment for most employees and income protection." On the question of procedure —how technological change can be facilitated—the unions "are unwilling to give management any additional freedom. The organizations believe that ad hoc negotiation, with no agreed-upon ground rules set in advance, and no limit on the ultimate use of economic or strike action, will best protect the interests of their members, and that this process can meet the needs of the industry."

● Management, on the other hand, seeks the "unrestricted right to introduce changes without that right being subject to negotiation. Moreover, management sees technological change and any resulting loss of employment generally as one of the hazards of industrial life. Only under particular circumstances, and not as a general rule, would management favor protective conditions beyond unemployment compensation for employees affected by technological change."

Faced with this labor-management impasse, the PRC sought the counsel of history—and arrived at the conclusion that "technological advance is a public blessing." (Moreover, the report noted, the struggle of the West against communism forecloses any course but the acceptance of technological change.)

With this basic premise in hand, the PRC turned to consider how change might best be effected without bringing too great hardship to the people involved. It studied five possibilities—and rejected four of them:

● The freeze, or moratorium on progress. This, the PRC said, "is no solution. It is so utterly incompatible with American character and history that it is undeserving of serious consideration. Any industry that commits itself to such a policy is already moribund. Its demise is foreordained."

● Unilateral freedom of action by management. "This will not work," decided the PRC. "It will inevitably provoke labor unrest and recourse to strikes. . . It is fatuous to expect that labor organizations as ably led as the railroad brotherhoods will surrender the right to bargain over matters which affect the very lives of their members."

● Change plus attrition. This "polite word," PRC said, "conceals a number of vices"—it means many employees have to devote time and energy to tasks that don't need to be done; it means that the nation is deprived of useful service which retrainable employees might render; and it's slow. Rational examination of attrition as a sole remedy, the PRC decided, "leads to the conclusion that it is inadequate."

● Change plus reduction in hours. PRC found that a general reduction in hours "is not consistent with our national interests, which require high and growing levels of output and, therefore, the full use of our manpower and resources. . . This is not the solution anymore than it would be to cure undernourishment by cutting a patient's diet every time he loses weight."

● Progress plus protection. This is the alternative the PRC did not reject. The unions proposed protective conditions, the commission commented, and "implicit in the carriers' approach to change is a degree of willingness to consider protective arrangements, provided they are left free to introduce the changes they find necessary to the full realization of technological progress. . . An adequate program to realize the benefits of advancing technology in the public interest, therefore, must include both reasonable opportunity for management to achieve change, and for workers to enjoy reasonable protection against the harsh effects of too sudden change. Progress plus protection must be our choice."

Consideration of the form of protection, PRC said, "inevitably starts with review of the provisions of the Washington Agreement. These provisions, or

Rail Jobs: A Changing Pattern

Job reductions over the past decade have cut unevenly across railroad payrolls—and the work force today follows a far different pattern than it did in 1952. The big change: A decade ago, train and engine service employees accounted for one-fifth of total employment. Now the T&E group is more than one-fourth of the total—and still climbing in relative strength.

Here are the relative positions of employee groups 10 years ago and today:

Job Class	*% of Total 1952*	*% of Total 1962*
Executives, officials, staff assistants	1.28%	2.03%
Professional, clerical, general	17.05%	20.63%
Maintenance-of-way and structures	19.74%	15.17%
Maintenance-of-equipment and stores	28.17%	23.25%
Transportation (other than train, engine and yard)	11.67%	10.92%
Transportation (yardmasters, switch tenders, hostlers)	1.30%	1.52%
Transportation (train & engine service)	20.79%	26.48%
	100.00%	100.00%

similar provisions in the Transportation Act of 1940, have been successfully applied to railroad mergers, so that the cost of protection has in fact become a part of the calculation in the development of merger plans. Over time, these provisions have on occasion been extended to non-merger situations. . . As in the case of mergers, so in the case of technological improvements, the cost of a reasonable plan for the protection of employees affected should be a charge against the savings obtainable from such improvement."

But there is an obvious danger in providing benefits for furloughed workers—the danger that union leaders may attempt to force the issue too broadly and, perhaps, endanger benefits which could be provided. A merger or an operating improvement made possible by advanced technology, for example, can be expected to better the railroad's position — through reduced operating costs often coupled with the prospect of increased business. In such cases, part of the savings might perhaps be passed along to workers whose jobs are abolished because of the merger or changed operating practice. But many, many jobs are lost simply because traffic has declined—and in these instances there are no "savings" out of which the carriers can afford protective benefits. It is, perhaps, significant that the shopcraft unions—though they're demanding benefits for employees displaced for almost any other reason—specifically rule out "decline in volume of traffic" as a reason for paying job-abolition benefits.

There is also an absolute danger—one brought out clearly in a recent discussion at the annual meeting of the Railway Magazine Editors Association between C. E. Mervine, Jr., assistant to the president and director of personnel of the Richmond, Fredericksburg & Potomac, and William G. Mahoney, Railway Labor Executives' Association attorney.

Mr. Mahoney declared that railroads "could take a vigorous role in pressing for legislation which would provide retraining geared to employees with railroad skills. Railroad imagination and effort could go far in assuaging the effects of this cause of its labor force shrinkage."

Mr. Mervine nailed the job problem down to its essentials. Improved operating efficiency, he said, has contributed to the decline in rail employment —but it has also saved some carriers from bankruptcy and has arrested a potentially more drastic downward trend in employment.

Then he added:

The problem of shrinking job opportunities "is complicated by demands that employees be retained in positions in which they cannot render productive service. When agreement provisions are not in step with the times or responsive to available technology, the resulting imbalance between jobs remaining and jobs actually needed functions as an additional burden on the industry."

Further, he declared, union demands for extending principles of the Washington Job Protection Agreement to all situations of operational or organizational change are indicative of a developing philosophy that "the purpose of the railroad industry and the sole purpose for its existence is the provision of jobs, rather than the rendering of service."

Realities of economics, Mr. Mervine emphasized, must set a limit as to how far management can go in providing for unneeded and displaced employees. "It is simply impossible," he concluded, "for labor organizations or government to make the railroad industry the guinea pig for employee protective benefits not applicable to other industries, unless they want to kill the goose that lays the golden eggs." (In this context, it's worthwhile noting that railroads today are the lone major industry which has to support, without employee contributions of any sort, an unemployment-sickness insurance program which provides benefit payments for strikers, for employees discharged or suspended for just cause and for maternity leaves.)

715,000 jobs remain

There's no argument with facts—and the facts indicate that rail employment has nose-dived. In 1952, ICC reports showed an average employment of 1,226,663 and total annual compensation at a rate of more than $5.3 billion. By May 1962 (last month for which complete statistics are available) employment had declined to a little more than 715,000—but compensation, on an annual basis, didn't come near reflecting the sharp drop.

(Further, the facts sometimes get tangled in the traffic-vs-technology debate and in the productivity argument. Too often, it seems, there's too little realization that railroads have suffered not only a relative but also an absolute traffic decline in the last decade. Similarly, claims regarding increased output-per-man-hour don't recognize that the major factor in the increase has been carrier investment in more modern equipment and facilities to make possible more efficient operation. Thus management, not the employees, have effected the "increased productivity.")

Over the years since World War II, some employee groups have suffered deeper cuts than others—and, by and large, it's the operating employees who have come out best. Payrolls in 1952 included about 242,000 maintenance of way employees, 19.7% of the total number of rail employees; and about 255,000 operating employees, 20.7% of the total. Ten years later, there are just 102,600 M/W employees—but 186,700 train and engine service workers. The M/W percentage—15.2; the T&E percentage—26.5.

One of the little ironies of the situation is that the M/W organization, since reaching a stabilization agreement three years ago, has tried to progress its aims quietly, in negotiation with individual carriers—and the work-rules dispute with the operating unions has gone from crisis to crisis, to wind up in a tangle of court suits.

Mr. Crotty says frankly that his organization is "seriously considering a movement to amend the agreement." But no program has apparently been decided upon, no schedule has been set up. There is some indication, though, that demands may be based on a force-reduction-through-attrition principle.

Other unions are also giving thought to stabilization matters. Smaller organizations—among them the Signalmen and Dispatchers—are negotiating with individual carriers, but don't seem inclined to start any national movement. The ORT has job demands pending on some 30 roads, including New York Central, where negotiations were resumed after the C&NW walkout ended. And the Clerks' organization, also actively pushing stabilization drives, is currently involved in emergency board proceedings in a dispute with SP.

Part of the gulf between management and labor in 1962 has been dug by the increased "social consciousness" of the country—or, more particularly, of the government. Buggy-whip and wagon makers weren't "protected" from advancing technology. They saw their jobs go, and they went out and got other ones. But today, "socially conscious" government scowls on industries that believe labor should share some of the risks that capital takes. Some management sources contend, vigorously, that what unions want is a "no-risk" utopia—where jobs just aren't lost, or, if they are, where the losers are fully protected from personal loss for a lengthy period. In some cases—the fireman-off dispute and the ORT's original freeze demands, notably—the union aim does seem to be the provision of jobs for unborn generations. (It's been noted, often enough, that the 2% attrition formula agreed to on the SP would theoretically never permit a final abolition of the position of telegrapher, no matter what the railroad's actual job needs might be.

Washington Agreement: Here's How It Works

A 26-year-old management-labor agreement is in the spotlight today as it's never been since the May day in 1936 when it was signed. The Washington Job Protection Agreement, as written, applies only to job changes brought about by railroad coordinations—but the merger movement is just a small part of the reason for the new focus on this depression-era pact. Unions—some of them, at least—would like to see the Washington provisions extended to cover employees whose job status is changed for a whole raft of reasons.

This goes against the terms of the '36 agreement — which said that "the fundamental scope and purpose of this agreement is to provide for allowances to defined employees affected by coordination . . . and it is the intent that the provisions of this agreement are to be restricted to those changes in employment in the railroad industry solely due to and resulting from such coordination. Therefore, the parties hereto understand and agree that fluctuations, rises and falls and changes in volume or character of employment brought about solely by other causes are not within the contemplation of the parties, or covered by or intended to be covered by this agreement."

These are the essential provisions of the agreement:

- Carriers planning a coordination must give 90 days' notice to employees. The announcement must contain a "full and adequate statement of the proposed changes . . . including an estimate of the number of employees of each class affected by the intended changes." Conferences are to be scheduled within 30 days of the time the notice is posted.
- No employee who is continued in service shall, "for a period not exceeding five years . . . be placed, as a result of such coordination, in a worse position with respect to compensation and rules governing working conditions than he occupied at the time of such coordination . . ." A monthly "displacement" allowance must be paid to an employee who, after coordination, would be paid less per month than he averaged in the 12 months preceding the coordination.
- Any employee "who is deprived of employment . . . shall be accorded an allowance based on length of service, which shall be a monthly allowance equivalent in each instance to 60% of the average monthly compensation of the employee" in the 12 months preceding the coordination. The period over which a "coordination" allowance must be paid ranges from six months (for employees with more than one and less than two years' service) to five years (for employees with 15 years' service). Workers with less than a year's seniority get a flat 60 days' pay. Any employee entitled to a coordination allowance may (at the time of coordination) resign and take a lump-sum separation allowance—also based on length of service and ranging from three to 12 months' pay.
- No employee affected by a coordination can be deprived of benefits attaching to his previous employment—e.g., free transportation, pensions, hospitalization.
- An employee forced to change his place of residence as a result of coordination changes must be paid moving and travel expenses plus an allowance for living expenses and loss of wages during his transfer. If the move involves sale of a home, the employee must be protected against loss (based on sale of the property at its fair value).
- If an employee receiving a coordination allowance finds railroad employment—other than on his home road or in the coordinated operation — the allowance can be reduced to the extent that the sum total of his earnings and his allowance exceeds the amount on which the allowance is based. No reduction can be made if the employee finds non-railroad work —no matter what his wage is.

Representatives of the RLEA and of 21 unions signed the agreement for labor. Most of the railroads in agreement originally were in eastern and western territory (though most southeastern lines have become parties to the pact since 1936).

There'll always be something to take 2% of.)

Even if government shies away from a position which might offend labor on the job security question, however, the public doesn't seem to be buying the perpetual-employment theory. Fallacies in the job-freeze demand have been thoroughly explored by both "conservative" and "liberal" newspapers.

As the New York Times commented editorially on the C&NW-ORT settlement, "A principle of great potential benefit to the country in this period of rapid technological change has been laid down . . . The award reaffirms the right of management to discharge telegraphers whose jobs it considers obsolete. It rules out all suggestions that this right be subject to veto by the union or by an outside arbitrator.

"This ruling is as sensible as it is significant. It recognizes that business survival depends on an employer's retention of the initiative to adjust to changed conditions. If the increased efficiency permitted by new technology is frustrated by the arbitrary freezing of jobs, the end result is likely to be no industry and no jobs . . .

"The important question now is whether the outcome of the telegraphers' dispute will generate some awareness among the other railroad unions that they cannot permanently maintain featherbedding in train crews. Their refusal to go along with the proposals of a special Presidential commission for weeding out useless jobs already has raised the danger of a national rail strike . . . This time both the unions and the White House must recognize that delay in a solution based on the right of rail management to operate efficiently can only push the railroads closer to bankruptcy and thus jeopardize all railroad jobs."

TRRA's Mail Sorter to Save $1 Million a Year

► **The Story at a Glance: An automatic mail-sack-sorting system may save the Terminal Railroad Association of St. Louis $1,000,000 a year. It is estimated the system will enable TRRA to reduce its mail-handling forces by 45%. The system, designed and engineered by Aerojet-General Corp., will permit TRRA to sort over 200,000 mail sacks every 24 hours.**

A new mail sorting system will be formally dedicated by the Terminal Railroad Association of St. Louis on Nov. 14.

Installation of the automatic system in St. Louis Union Station, says Gregory W. Maxwell, TRRA president, has two objectives: "One is the attainment of a greater degree of speed and efficiency in the handling of the United States mail. The second is the realization of massive economies in passenger-train operating expense."

The volume of mail handled by TRRA is currently running at 6,000 to 7,500 ft of mail daily, which translates into 39.4 to 49.2 million sacks and parcels a year. TRRA's new mail sorting system has a normal yearly capacity of 77.1 million sacks and parcels. It has a built-in annual maximum sorting capacity of 89.7 million sacks and parcels.

With the new system TRRA will be able to handle more mail with greater efficiency, and with approximately 175 fewer men, than when conventional conveyor and hand-sorting methods were used.

Mr. Maxwell estimates that passenger railroads entering St. Louis will realize economies of $1 million because of the new system.

The new system was designed and engineered by Aerojet-General Corp., which also manufactured and installed the equipment. Two major sub-contractors were the J. C. Corrigan Co. and the Louis S. Sachs Co. The system's preferential sorter (for first class mail in sacks) went into operation in October 1961. Last Oct. 8 the outsides sorter (for parcel post not in mail sacks), was placed in operation. The system's third unit—the non-preferential sorter (for sacked parcel post, often called storage mail)—went into full operation on Nov. 1.

The system cost approximately $2 million. It has been leased by TRRA for 10 years, with an option to purchase at the end of that period. Included in the lease is a maintenance contract covering the system's electronic memory controls.

A key factor in reducing the cost of the new facility was its integration with TRRA's previously existing conveyors. (TRRA did, however, spend about $130,000 to install a communications system, move locker facilities, and to make other necessary construction changes.)

In 1953, TRRA placed in operation an extensive conveyor system to help speed mail handling in its St. Louis Union Station. As part of this $4-million project, a new mail shed was constructed at the far end of the train shed for sorting first class mail in sacks. A second building, known as the mail facility, was constructed across the street from the mail shed. Conveyors were installed in overhead bridges connecting these buildings.

An extensive conveyor system was installed to bring mail from floor chutes along side station tracks into the mail facility for sorting storage mail. In addition, conveyors were installed to handle mail directly into and out of the St. Louis post office. The extensive conveyor systems enabled TRRA to bring mail directly to its sorting locations where the mail was then hand sorted.

The new automatic mail sorting system's three units are located as follows: The preferential sorter is in the mail shed; the non-preferential sorter is on the second floor of the mail facility building; and the outsides sorter is in the basement of the mail facility building.

Here's how the system works: Sacked unsorted mail is trucked from inbound trains to the preferential sorter. The sacks are unloaded and placed on a conveyor that raises them to an induction slide where gravity carries them to four keysort or coding stations. Here, the coder swings the sack around, placing it in a loading hopper (indexing table). Next, he reads the destination tag on the sack and presses pushbuttons numbered 0, 1, . . . 9 in a combination representing the destination code of the mailbag. A yellow indication lamp on the keyboard unit lights up, telling him the mail sorting unit has accepted the code. At the proper moment, the loading hopper opens and moves the sack to a distribution conveyor. As the sack travels along the distribution conveyor, any one of 17 overhead dual diverters swings down and pushes the sack off the conveyor belt at the proper destination location into a chute to drop the sack onto any one of 34 floats (4-wheel platform trucks). The first-class sorter can handle 2,400 to 2,880 sacks per hour. After sorting, the floats are towed to outbound trains.

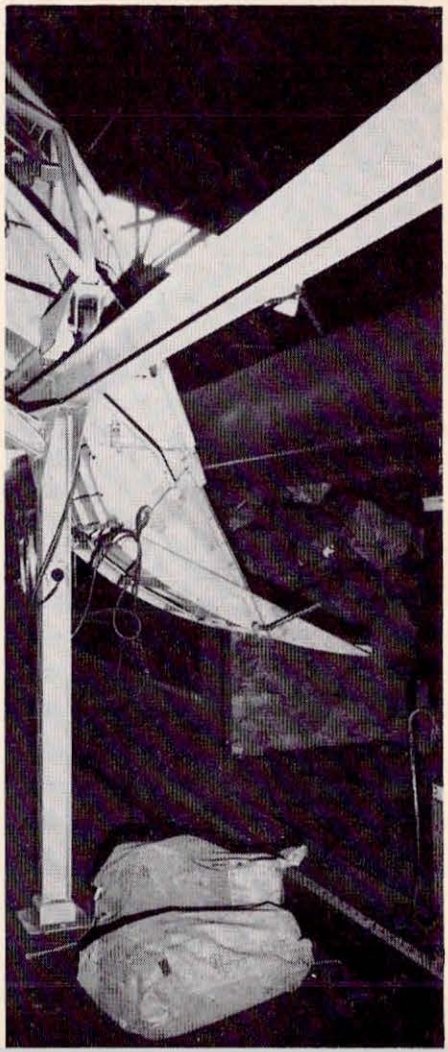
STORAGE MAIL or sacked parcel post

The brain of each automatic sorting unit is an Aerojet magnetic memory device.

The device is small and compact, employing a drum which rotates in exact synchronism with the motion of the conveyor belt. Provision is made for activating certain combinations of magnets on the drum face. These combinations are determined by the codes placed in the system by the keysort operator, or coder.

The combined magnets then activate a series of switches located around the memory drum at positions corresponding to the positions of the diverters on the main distribution belt. Thus, when a mail sack is at its proper location to be diverted from the distribution belt, the magnets on the drum arrive at the corresponding switches to activate the

(above) is conveyed to keysort operators (below left). Sacks are delivered directly to railroad cars (below right).



diverter which removes the sack to the proper destination.

The largest of the three mail sorting units is the non-preferential mail facility. The facility has two sorting lines, each of which sorts directly to 32 railroad cars, 7 floats (platform trucks), 6 sawtooth platforms, and directly to the post office. The distribution belts have a normal capacity of 4,800 sacks per hour, which can be increased to a maximum of 8,760 sacks per hour. This unit handles storage mail or parcel post in sacks. Floor chutes along seven tracks in the mail section of the station permit dropping of mail directly onto conveyor belts. Another conveyor belt, for incoming mail, is between tracks 31 and 32 in the passenger train shed section. This belt is about 3 ft above the platform level so that a man working in a mail car can easily place a sack onto the belt.

The storage mail conveyors can deliver mail either to the automatic sorter or directly to the post office. A choice is made if a car is entirely loaded, or if a substantial, easily separated portion (½ or more) of the car is loaded with St. Louis mail. If the breakdown can be quickly and easily made at the car, the foreman on the platform notifies the conveyor control

OUTSIDES SORTER handles individual parcels at the rate of over 1,600 pieces an hour.

operator. He actuates a green light on the platform, indicating that the conveyor is delivering mail to the post office. This informs others working cars on the platforms served by the conveyor not to throw non-post office mail onto the conveyor. If the car has mixed mail which must be sorted, the foreman notifies the conveyor operator who turns on the red lamp which indicates that the conveyor is now sending mail into the automatic sorting system.

Conveyors bring the storage mail sacks into the second floor of the mail facility building where they are run into bulk storage slides with a total capacity of 1,600 mail sacks. The inbound console operator has control of conveyors and various gates to regulate the flow of mail sacks to keysort operators. From the bulk storage slide, sacks slide down to a conveyor that raises them to an induction slide where gravity carries them to the keysort stations.

The storage mail sorter system is really two systems side by side, each employing four keysort stations. This parallel arrangement enabled the system to be installed in the existing building without making extensive changes to the building or to existing conveyors, and also provided flexibility in operations.

After keying, the sack is dropped from the indexing table onto the distribution belt from which it is diverted onto a slugging storage conveyor. (These sacks, destined for the same railroad storage mail car, are called a slug of mail.) For every two sacks it receives, the slugging storage conveyor inches forward until it holds 20 sacks. This is its capacity and is so indicated by a red fullness lamp lighting on an outbound conveyor control console. Partial filling of the slug storage conveyor is also indicated: one-third full lights a blue indication lamp; two-thirds full lights a yellow indication lamp.

Out at the platform, a man working a car positions a slugging chute for dropping the mail into the car. When he has a chute in position, he uses a telephone handset or talkback loudspeaker to notify the outbound conveyor console operator that the car is available to receive mail. The console operator then activates the proper red "running" button for the slug storage conveyor. Mail sacks are run off onto the slugging conveyor that moves the sacks out of the building to a chute where they drop onto the slugging conveyor over the platform. When the slug of mail approaches the car for which it is intended, the diverter gate at the top of the chute swings open across the conveyor, diverting the sacks down the chute into the car. The platform man then stacks the sacks in the car.

Electronic controls

Electronic controls regulate this system so that when the slugging storage conveyor dumps its slug onto the outbound conveyor, the sacks go to the correct car. Because slugs of mail for different addresses will occupy outbound conveyors simultaneously, passage of each slug of mail by a photocell light-beam arrangement at the entrance of the slugging (outbound) conveyor synchronizes the belt and diverter operation so the mail sacks are dumped into the correct car.

The third sorter is for parcels which, because of size or shape, cannot be handled in mail sacks. This sorter is in the basement of the mail facility building. Three keysort stations are used, each having an indexing belt, which at the proper moment moves the parcel onto the distribution belt after the operator has keyed the parcel. This distribution belt can handle over 1,600 pieces per hour and has 17 dual diverters which push parcels to 34 gravity roller conveyors. Along the ends of these rollers is a motorized truck which enables a man to patrol the roller conveyors. He takes the parcels off the rollers and loads them onto platform trucks. The trucks are then hauled directly to cars for loading. Outsides are delivered to this sorter by platform truck.

Some parcels may be too high and may catch in the supporting structure for the diverters. Therefore, a light source and photocell are mounted at the entrance of the distribution conveyor. Any package breaking this beam will be pushed off the belt by a single diverter before the package passes under the first diverter. Similarly, any package too low to be reached by the diverters (they are paddles which swing from an overhead support) will not break a lower light beam and, hence will actuate the single diverter to be removed from the belt.

The only hand sorting performed is for unbeltables and little-used addressed storage mail. Unbeltables include such parcel post items as tires, gears, trees, and even crated chickens. The non-preferential sorter has diversions to chutes directed to six sawtooth platforms on the first floor of the mail facility building. Mail sent to these platforms is destined for many addresses that are rarely used or that have such a small

New Labor Agreement Is Satisfactory to Clerks and TRRA

Extensive negotiations between the Terminal Railroad Association and the Brotherhood of Railway Clerks preceded installation of TRRA's new automatic mail sorting system. Agreements satisfactory to both parties were reached, and transition to the new mail-sorting setup has been amicable, according to Gregory W. Maxwell, TRRA president.

The agreements provide for employees' bidding in on the new positions that became available when the automatic sorting system was installed. Those who were eligible because of seniority were given training. Those who were unable to be trained or were not eligible because of lack of seniority have a choice of either of two basic plans agreed upon by the union and the railroad. The agreements will not take effect until Jan. 1, 1963. A man may elect to take a cash lump sum settlement and leave the employ of the Terminal, or he may elect to receive, for five years, 60% of his previous year's salary. If he re-enters railroad employment, his earnings will be credited against the 60% payment. These benefits will not have to be paid to anyone who was hired by TRRA after May 1, 1961. Terminal officers estimate that at the current rate of attrition, within two years all those who take the 60% reduced pay will be back working full time.

In addition to this satisfactory settlement for employees who will be displaced, TRRA's president said the upgrading of many of those remaining to positions of higher skills and consequent higher pay certainly helped smooth transition to the new automatic mail sorting system.

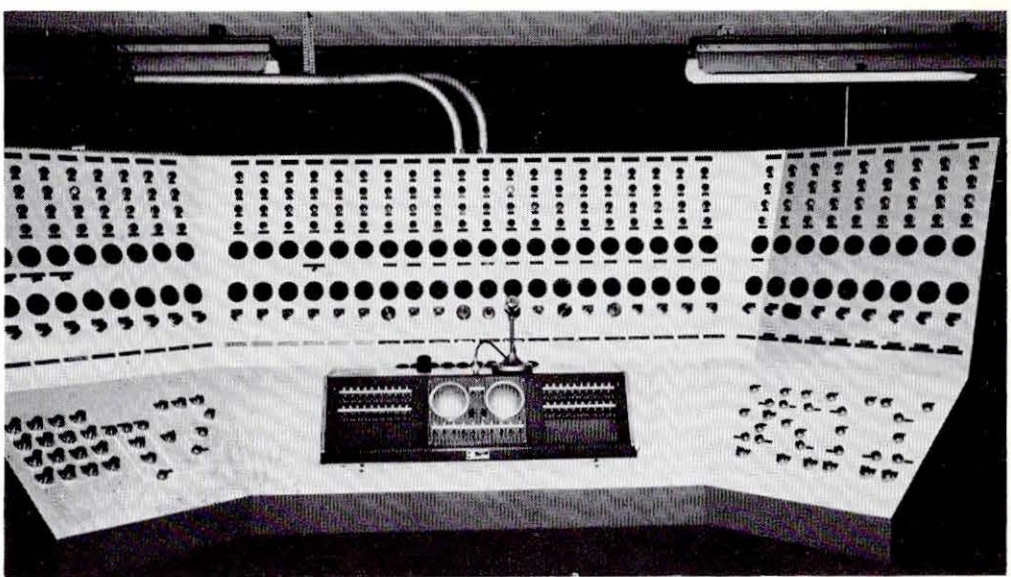
volume of mail that hand sorting is more efficient than using the automatic system fully to final delivery.

"We'll be in good shape to handle the Christmas rush," reports George Siebert, assistant to the TRRA president. During last year's Christmas rush, he said, the first class sorter was used for parcel post because installation of the outsides and parcel post sorter had not been completed.

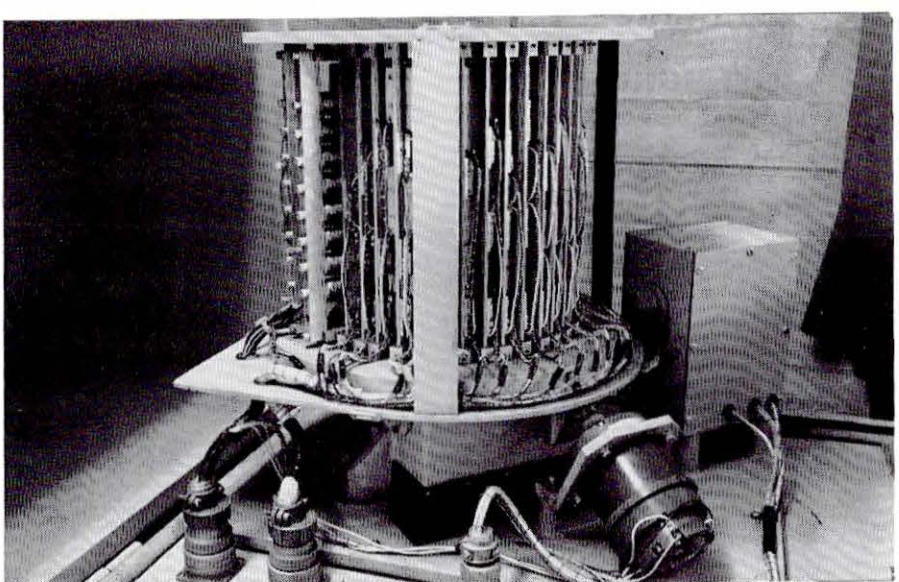
That all three sorters (first class, parcel post and outsides) are essentially the same is a tremendous advantage, according to Mr. Siebert. Because of the similarity, any one sorting unit can be used for other types of mail. While it is anticipated that this year's Christmas rush will be handled by each system sorting its normal type of mail, a switch can be made. Even without the switch, it is anticipated that, except for the coming holiday season, the first class sorter will be operated only two shifts daily. The other two sorters will be operated 24 hr daily.

The St. Louis post office benefits from the new automatic mail sorting system, according to Postmaster Claude I. Bakewell.

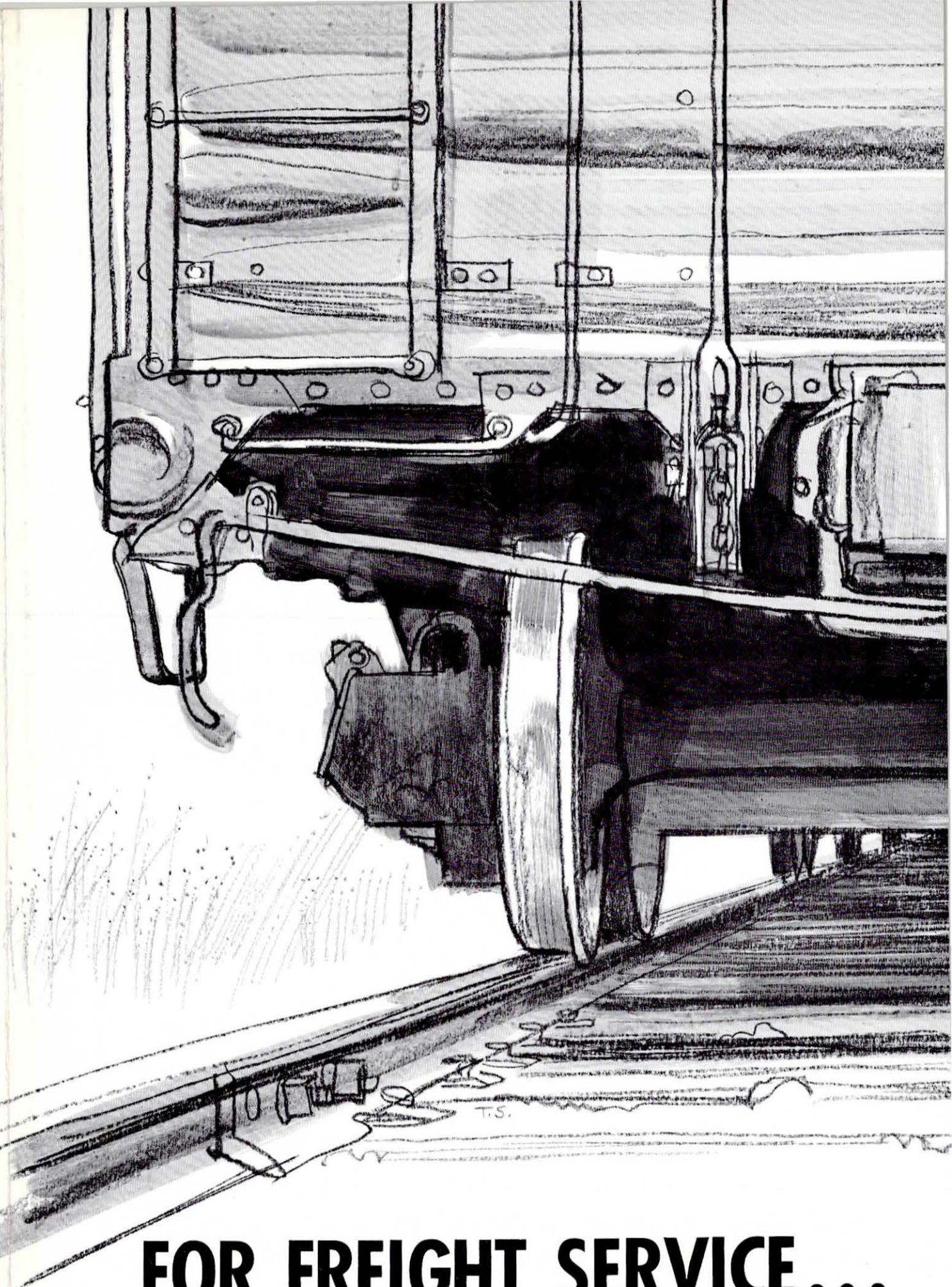
"The St. Louis post office," Mr. Bakewell said, "is very happy about the installation of an automatic mail handling system in the St. Louis Terminal. This is another indication of the constant desire of the railroads in cooperation with the post office to move the mail efficiently and with utmost dispatch. Our post office in St. Louis is the eighth largest in the country. Its tremendous volume of mail and its anticipated increase should fully warrant this wise and farsighted investment by the Terminal Railroad Association of St. Louis."



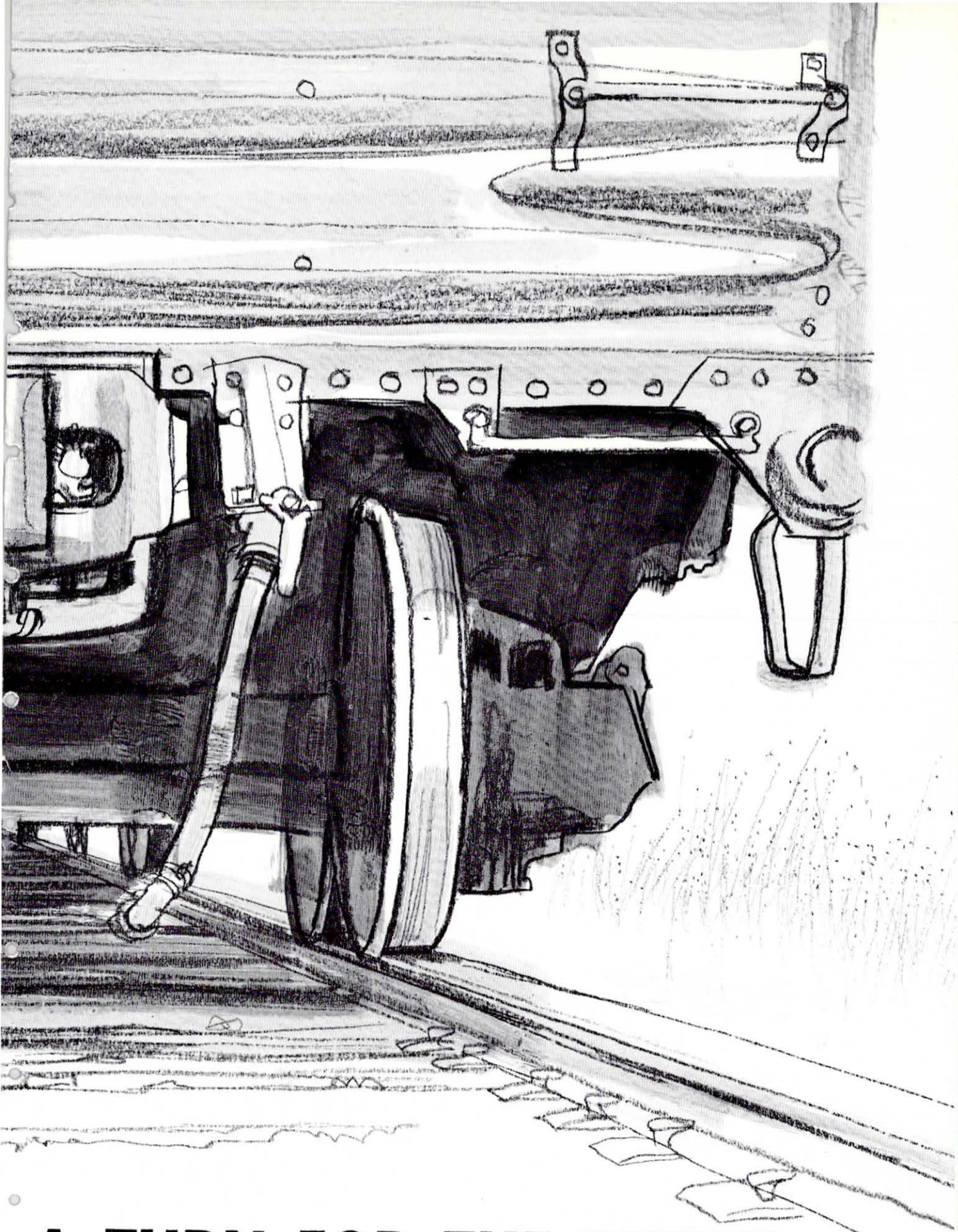
OUTBOUND CONSOLE controls conveyors that deliver sacks to mail cars.



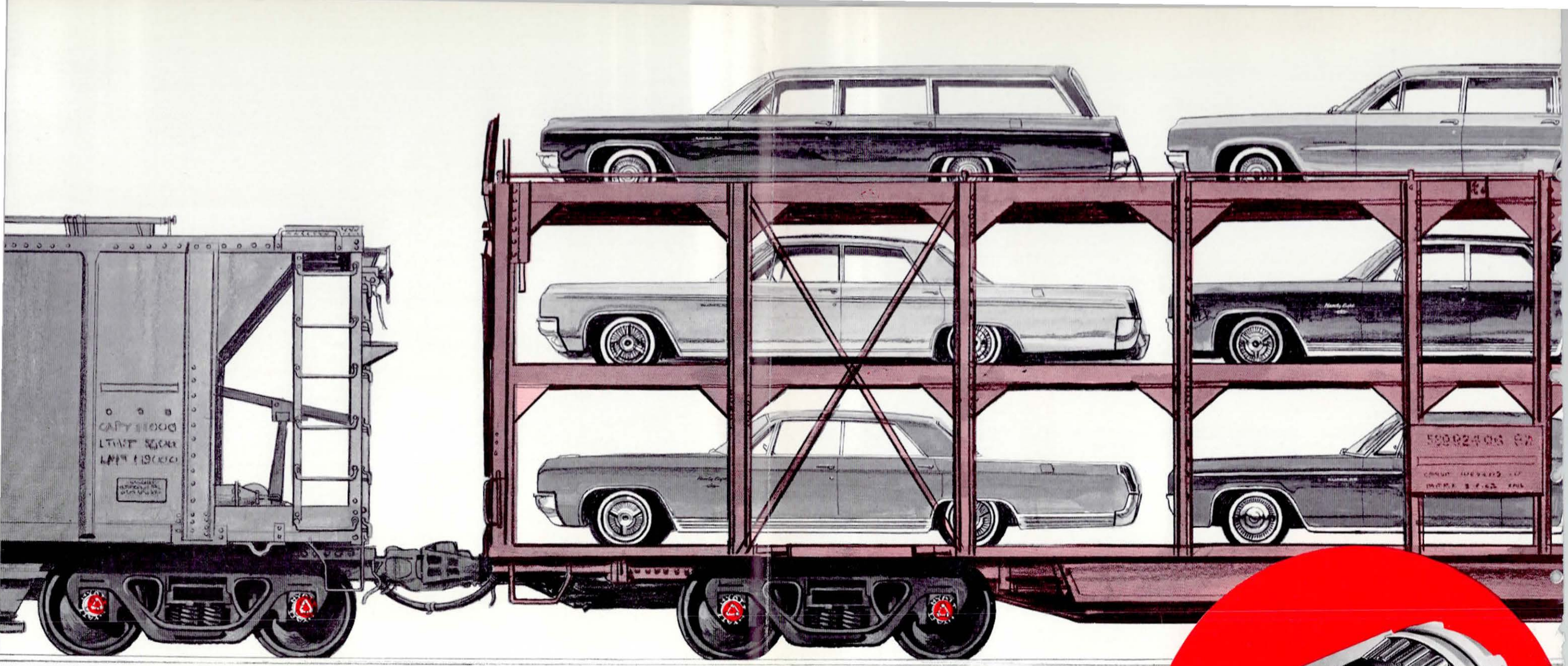
BRAIN of each automatic sorting system is a magnetic memory device.



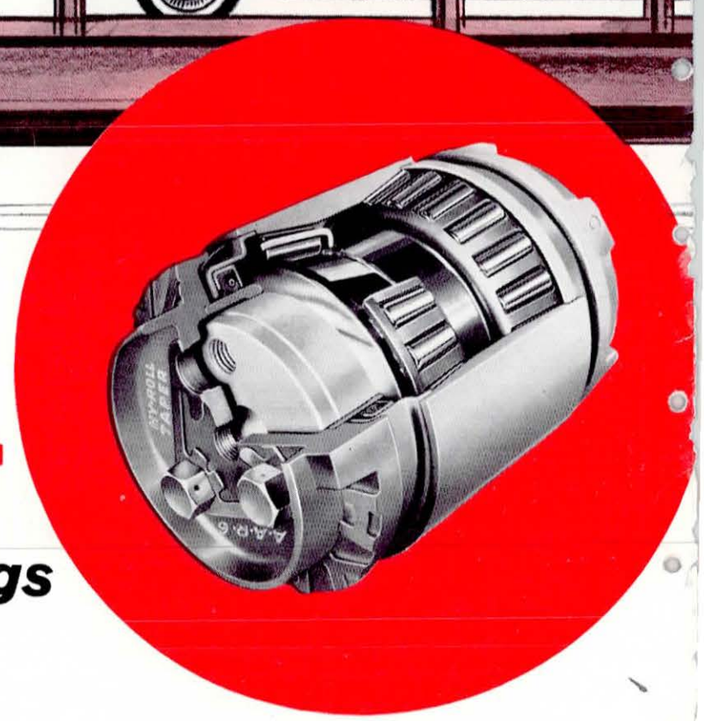
FOR FREIGHT SERVICE...



A TURN FOR THE BETTER



AS RAILROADS TURN TO HYATT
taper freight bearings

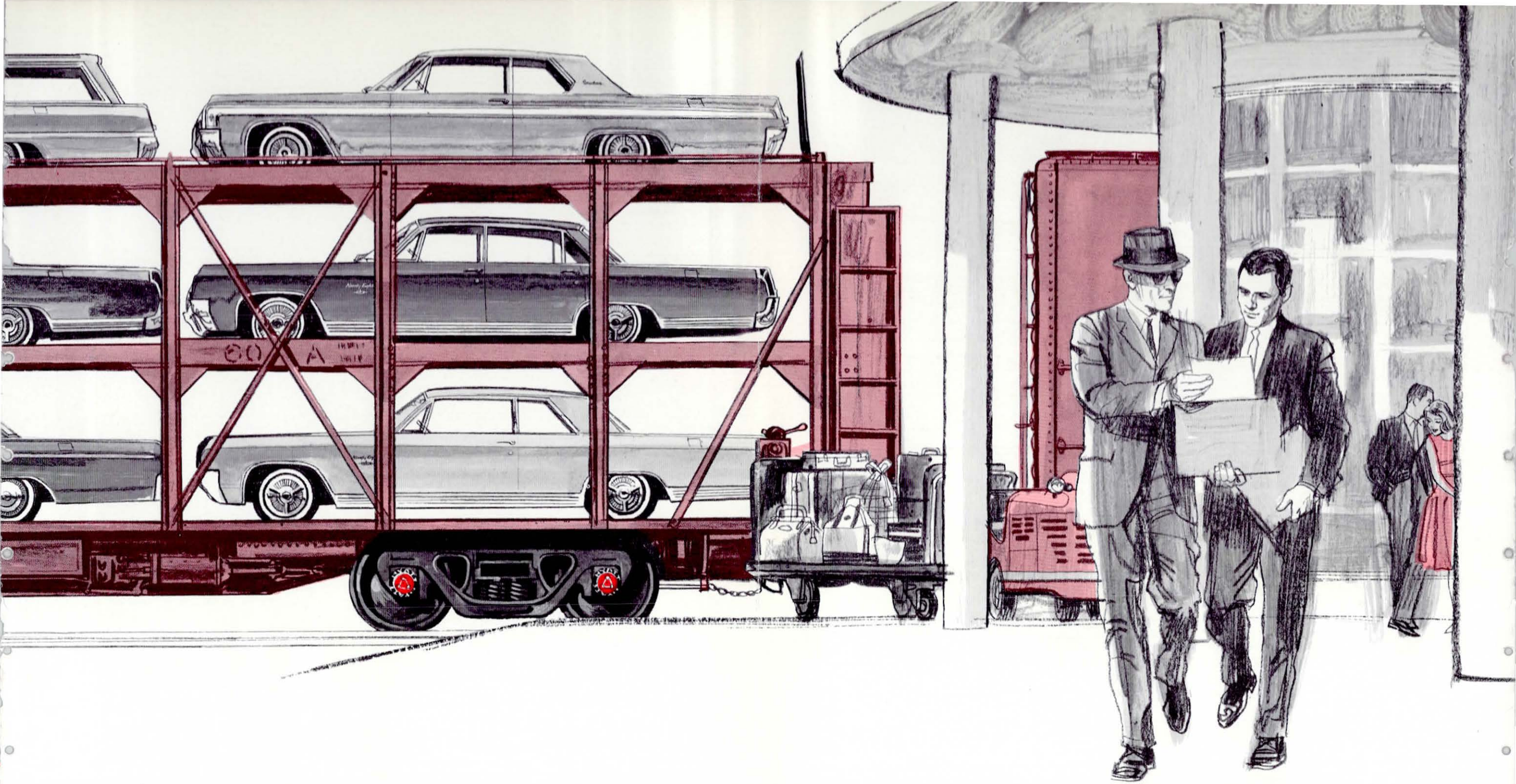


Look—no solid bearings. No unscheduled stops either! When there's a Hyatt taper freight bearing at every wheel, freight service is dependable . . . modern . . . trouble-free and fast. Freight earnings get better and better, day by day.

It doesn't happen overnight.

It happens with each new car order specifying Hyatt taper freight bearings. For as each new Hyatt equipped car goes into service—paring down delays and operating costs—it removes another obstacle on the road to better railroad revenues. Freight car investments are strengthened by strengthening the earning power of each car in the fleet!

Hyatts pay for themselves in operating economy by virtually eliminating costly maintenance and lubrication, cutting terminal bearing inspection time to a minimum.



FREIGHT EARNINGS GET BETTER... AND BETTER... AND BETTER... AND

They help eliminate delays, reduce damage claims, increase car availability, improve service and promote greater goodwill with your shippers. When the majority of all freight cars roll on anti-friction bearings, our nation's railroads can expand their earning potential.

In view of these facts, every executive concerned with railroad earnings will probably agree that it no longer makes economic sense to invest in otherwise modern freight cars with obsolete solid bearings. Progressive railroaders, who think about tomorrow and tomorrow's profits, should specify Hyatt taper freight bearings for all new car orders.

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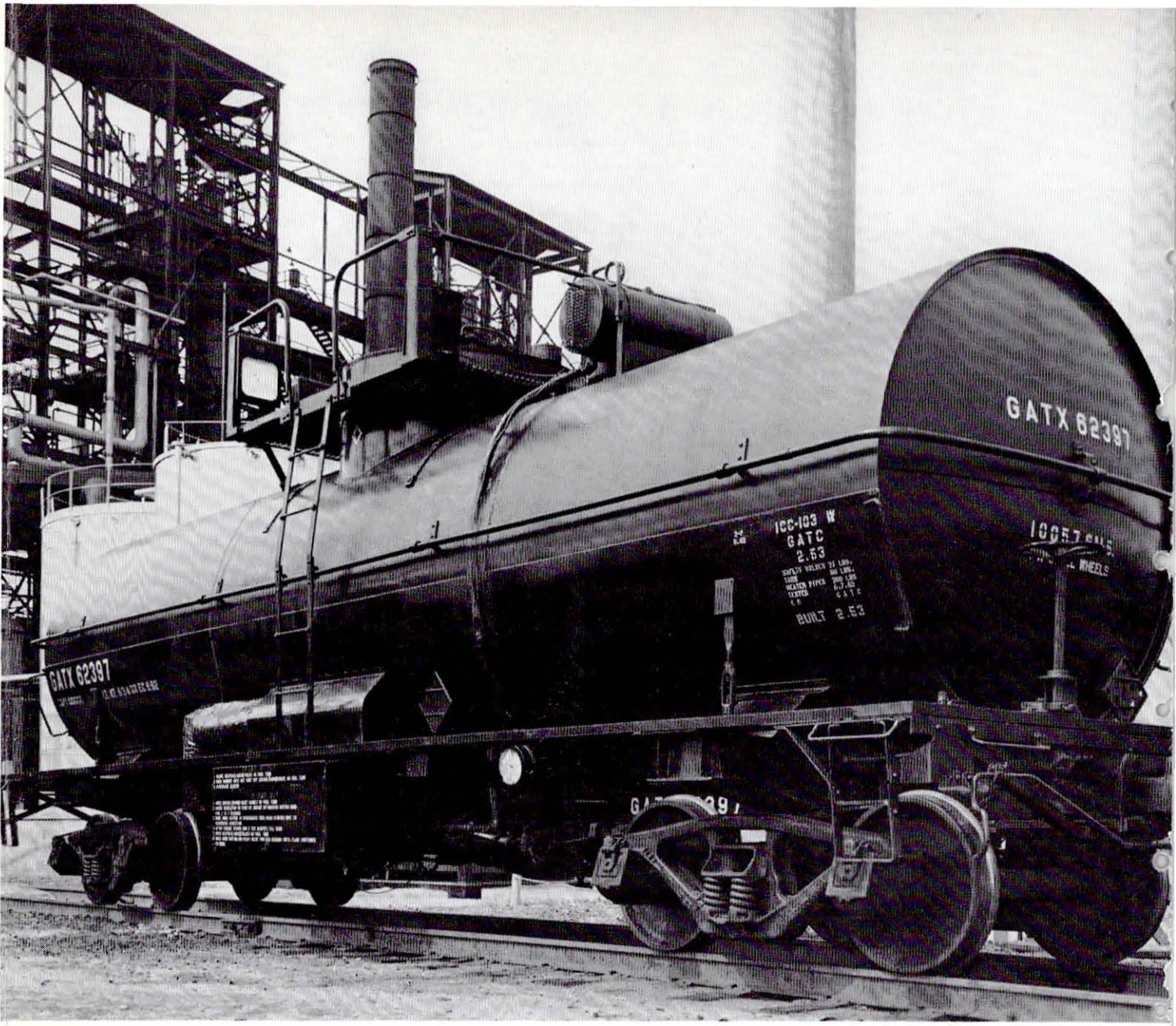
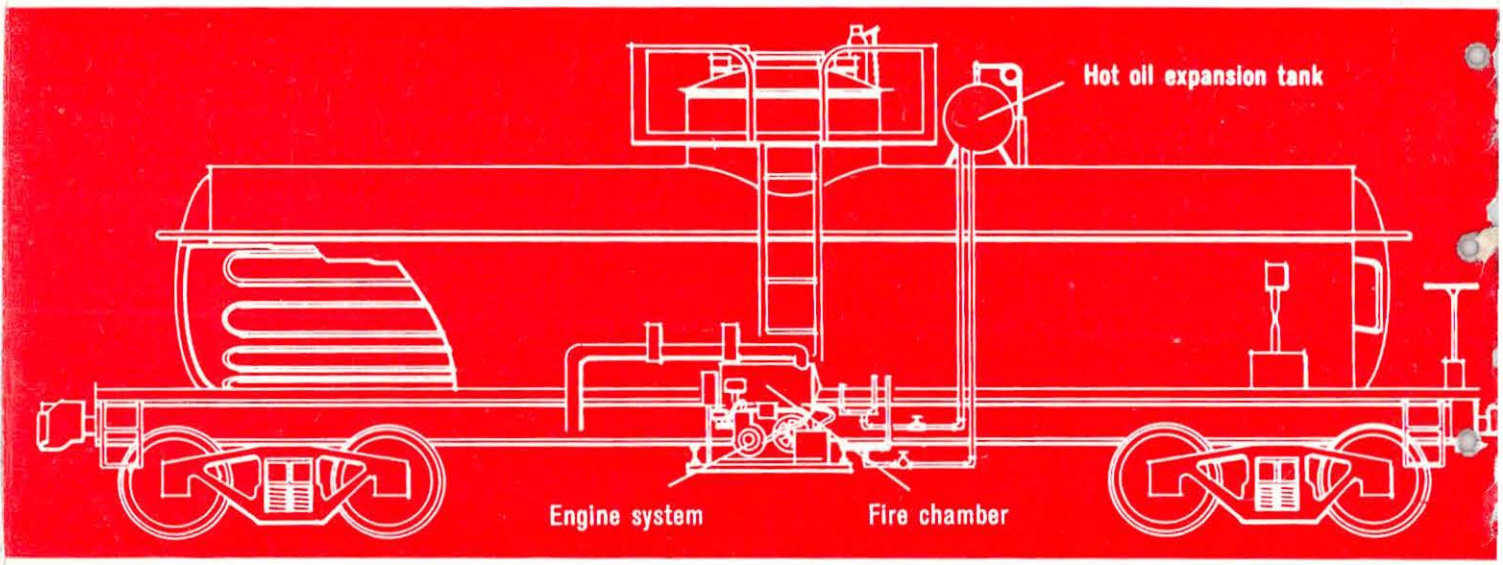


INSULATED CAR has coils through which hot oil is circulated to maintain temperature of pitch lading en route. Heat is furnished by propane-fired burner mounted in compartment on side of car; fuel tank is on opposite side.



THERM-O-TEMP heater has high-fire output of 300,000 Btu per hr, normal rate of 150,000. Engine powers blower and

Tank Car Handles Pitch Economically

A new heated tank car solves a major materials-handling problem in transporting coal tar pitch. The car, called "Therm-O-Temp," was developed by United States Steel, Vapor Corp. and the General American Transportation Corp.

The car is called an "innovation in liquid-pitch-handling technique" by Bennett S. Chapple, Jr., U.S. Steel's administrative vice president- commercial. The continuously heated car is, he said, "an answer to many years of research for a practical method of keeping pitch in a hot, liquid state—and ready for prompt unloading when it reaches our customers' plants."

A chief advantage of the car is its ability to cut unloading time from as much as 48 hours to 45 minutes. According to U.S. Steel spokesmen, the car also:

- Eliminates maintenance of costly car heating facilities.
- Reduces the "on wheels" inventory (the car remains just long enough to unload and then it is moved out).
- Assures customers of having liquid pitch at precisely the right temperature for unloading—summer or winter.
- Eliminates time lags; gives plants greater efficiency and flexibility in planning schedules.
- Increases the daily unloading capacity of customer installations, allowing possible expansion of operations without need of new terminal facilities.

"All of this generates real savings for the customer," Mr. Chapple observed.

After complete road tests, the 10,000-gallon prototype car with a propane-fired circulating oil heater, leased by U.S. Steel from GATC and loaded with electrode binder pitch, completed its first commercial trip to the Chalmette, La., works of Kaiser Aluminum & Chemical Corp.

The largest single market for coal tar pitch is in the production of electrodes by the aluminum industry. Although the Therm-O-Temp car was especially designed for pitch, U.S. Steel representatives say its use may well be extended to hauling other products more economically handled in a hot, liquid state. Other product applications could develop wherever heat loss in transit is a materials handling problem.

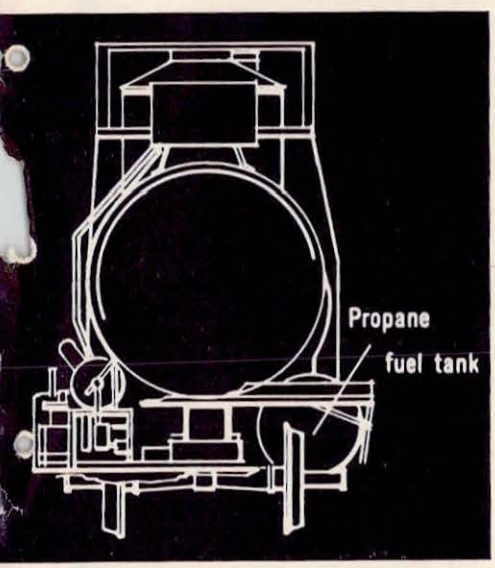
Prior to development of this car, a major materials handling problem resulted from the lack of temperature control of pitch in transit. Pitch, in a hot (300 to 400 deg F) liquid state when loaded into a car, would cool and solidify shortly after shipment. Extensive heating operations were necessary at customer installations. A heating medium would be pumped through the car—a costly, time-consuming operation—to heat the pitch to the point where it could be unloaded from the car into heated storage tanks.

The prototype car is a completely packaged unit for maintaining liquid commodities at controlled temperatures up to 450 deg F. Vapor designed the propane-fired oil system for heating the car in transit. The car has equipment and auxiliary controls designed to make it fully automatic.

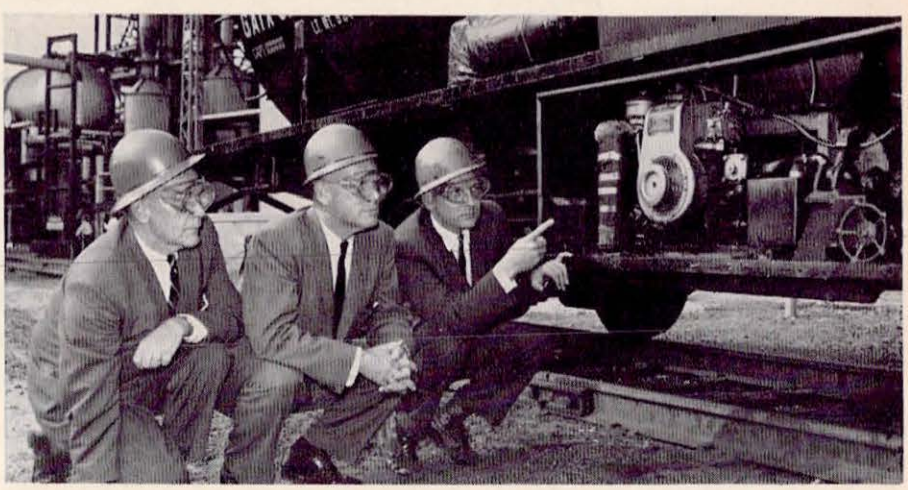
Here's how it works: The tank is heated by hot oil circulated through parallel coils welded to its surface, and insulated with 4 in. of fiberglass in a protective outer shell. This heating coil arrangement leaves the interior free of obstructions and distributes the heat evenly over the entire surface of the car. The major components of the hot oil heater unit are the propane fuel, engine drive, and heat transfer oil systems. A propane tank supplies propane vapor to fuel the engine and propane liquid to fuel the heater. The liquid propane is vaporized with heat from the engine exhaust prior to use.

The 5-hp, one-cylinder, four-cycle engine drives (1) the blower which delivers combustion air to the heater, (2) a positive displacement pump which circulates heat transfer oil through the heater unit and then through the heating coils surrounding the tank, and (3) a two-terminal magneto which provides ignition for the pilot burner and the engine.

Super Therm-O-Temp tank cars of much larger capacity will be in service next year for transporting liquid pitch produced at U.S. Steel chemical plants in Fairfield, Ala., Gary, Ind., and Clairton, Pa. These cars will be equipped with external heating coils covered with 6-in. duplex fiberglass insulation, a 400-gallon fuel tank, and a redesigned and improved circulator-heater unit.



circulating pump which delivers 18 gpm.



HEATING SYSTEM on the pitch tank car is inspected by U. S. Steel officers. Left to right are C. W. Baldwin, director of chemical sales; B. S. Chapple, Jr., administrative vice president — commercial; and H. F. Nearing, traffic manager for coal chemicals. First revenue trip was recently completed.

"The Freight Traffic Issue of Railway Age is one of the musts on my reading list" . . .

THE MOST COMPLETE CHOCOLATE AND COCOA PLANT IN THE WORLD

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MANUFACTURER OF CHOCOLATE AND COCOA

HERSHEY, PENNA.

June 19, 1962

Mr. Robert G. Lewis
Publisher
Railway Age
30 Church Street
New York 7, N.Y.

Dear Mr. Lewis:

I look forward to receiving the Freight Traffic issue of Railway Age because it contains such interesting information. One of my favorites is the traffic poll. As a little game, I request the men in my office to formulate their ideas on the traffic question and then compare their answers to public opinion. This magazine is well prepared and edited and is filled with useful information for the layman or trained traffic executive. This is one of the musts on my reading list.

Very truly yours,

H. P. Gabriel
General Traffic Manager

HPG:rs
Enc.

What's Your Hotbox Detector Problem?

How do you choose a location for a hotbox detector? What are the merits of the various types of readout? Who maintains detectors? And how do you train employees in maintenance work? Are false indications a problem? These —and many other—questions were considered by a panel of railroad men at the recent AAR Communication and Signal Section meeting in Chicago. Here are some of the answers they developed.

Krause: Has anyone had trouble with 95-mph passenger trains with steam traps causing false indications on hotbox detectors?

DePriest: Our passenger trains don't run that fast, but we have had trouble with detector indications caused by steam traps. In a test, we found that any hot pipe within 10 ft of the scanner, 46 in. above the rail and 2½ in. outside the rail gage would be within scanner range. The best answer to eliminate false signals was to apply metal shielding around these traps. The mechanical department has wrapped steam pipes with asbestos, and this did help some.

Garrison: Servo Corp. has made tests and modified their gating circuit to restrict the amount of scanning. The transducer spacing has been reduced from 38 in. to 26 in. The gate terminates as the scanner looks across the top of the journal box, and this has eliminated steam trap pickups.

Chatten: We have no trouble with steam traps, hot water leaks or hot metal cars, even though these cars may hold metal at 300-400 deg F. By closing in the transducers, we have obtained good results. This has cut the scanning area off just short of the top of the journal box.

Smeltzer: What factors govern the location of hotbox detector scanners for yard entrance and line-of-road installations?

Karlet: We examined the motive power department's hotbox records for 10 years. The detectors go in just in approach to the point where most set outs occurred.

Troth: Yard systems are set up with the scanners 5-10 miles from the yard so that the entire train can pass the scanners at a reasonable speed. Spots were picked using records for the past year or two showing the most hotboxes.

Hartzell: Our first and most active detector was located between two junctions, about 25 miles from Boston. We have lots of traffic moving past this detector. Locations are picked by analysis of points where cars with hotboxes are set out. Factors to consider are tangent track available, set out points such as sidings and stopping distances available.

Blatt: We locate detectors near a connecting railroad to check on cars received in interchange.

DePriest: Where you locate a detector may depend upon whom you talk to. For example, the operating department might well prefer to have the detector located at a different point than one the mechanical department would indicate as a good location. Do not locate at points where trains are operating at slow speed or are stopping. Chart maintenance costs go up if a train is stopped in a detector area. Also, stopping the train before it has been completely checked by the detector requires track circuits to hold their train direction controls. Another factor to be considered in detector location is this: Do not locate hotbox detectors in rolling country where trains might break in two over hills. When seeking hotbox detector locations it is a good idea to check with the superintendent and the roadmaster. For a line-of-road installation, put the scanners about two miles from the nearest siding. Let the equipment check out before an opposing train or following train arrives. This is especially important with the voice talking detector. Line-of-road detectors spaced 30-35 miles apart appear to be the best.

Chatten: We located detectors where we had high hotbox incidences, but conditions change so that these locations are not where we would locate detectors today. Hotboxes and hotbox indications are down 30% from the figure of three years ago.

Ash: We have manual readout for hotbox detectors installed in approach to yards, but because we have few operators, our line-of-road installations are automatic. What are the merits of the various types of readout, such as manual, automatic, talking or printing?

Hesser: It is a matter of economy. We have manual readout. The money we save by not having the automatic kind can be used for more detectors. We are not entirely satisfied with the automatic cut-off point, which makes the detector a go or no-go gage. There is merit in using judgment to evaluate the chart in the manual readout type. Hotbox detector data is sent to division headquarters.

Chatten: We have no automatic readouts yet, but they will come. Manual readout enables a man to use his head. We've had overheated axles picked up by the operator and corrective action taken before the detector was tripped.

DePriest: We have both manual and automatic readouts. We have had good success with the manual readouts. With an automatic readout, you don't get bad judgments; you won't get any delay in alerting the train crew, and you don't have to worry about a man misinterpreting the readout chart. Maintenance personnel prefer the automatic detector because all the equipment is in one place. For manual readout, a telephone circuit and more than one man is needed for maintenance.

Garrison: Graphic readout enables you

PANEL MEMBERS

Participants in the C&S Section hotbox detector panel discussion were: E. A. Krause, signal engineer, Union Pacific; J. R. DePriest, superintendent communications and signals, Seaboard Air Line; W. B. Garrison, electronics engineer, signal department, New York Central; F. L. Chatten, system engineer—communications and signals, Pennsylvania; V. O. Smeltzer, superintendent signals system, Santa Fe; J. G. Karlet, superintendent signals and communications, Norfolk & Western; R. W. Troth, general superintendent communications and signals, St. Louis-San Francisco; W. W. Hartzell, engineer of signals and communications, Boston & Maine; G. B. Blatt, chief signal, electrical and communications engineer, Reading; P. P. Ash, superintendent communications and signals, Louisville & Nashville; J. M. Hesser, assistant superintendent signals and communications, Norfolk & Western; and H. B. Garrett, signal engineer, Southern Pacific.

to watch suspicious journals. It also provides valuable data for studying hotbox trends. The manual readout is useful in maintaining the equipment in that it provides a graphic record making it easy to spot malfunctions.

Ash: Do you have any training program for the men? We find that the equipment is beyond the normal understanding of maintainers.

Karlet: We sent people to manufacturers' schools, including supervisors. When trouble develops on the equipment, supervisors are sent out. They can work on the equipment, because we have never given its maintenance over to one particular craft. There is not too much added expense for hotbox detector maintenance. On our road, the signal maintainer handles the track-side equipment, such as the scanners; and the communications maintainer handles the signal transmission part, such as carrier.

Troth: Our detectors are in block signaling territory, so we've had the signal maintainers handle the hotbox detector maintenance. We sent assistant supervisors to the manufacturers' schools, and these men trained our signal maintainers. The average maintainer does well with the assistance of the supervisor.

Hartzell: We sent supervisors to manufacturer's school. They have been very competent in this work. The maintainers assist these men in working on the detectors. Maintainers can check simple troubles.

Hesser: The average maintainer needs much help from the supervisor. But those maintainers with an interest in electronics do pretty well. The older maintainers don't have so much interest, and they need supervisory help.

Garrison: Our three hotbox detector maintainers are electronic technicians and have a good electronic background. Each is fully equipped with test instruments (about $2,500 worth) and an automobile. These men are on a salary of $625 per month. Trouble-shooting is often done by supervisory personnel or maintenance foremen.

DePriest: A one-week lecture was given to supervisors by railroad men and manufacturers' representatives in 1960 and 1961 and we'll do it next year.

Garrett: At yards where we have the detector on the approach checking inbound trains, our mechanical department wants us to use a 5 mm positive reading as the one used for stopping trains. The signal department finds the 5 mm differential reading (difference in the readings from both ends of the same axle) is satisfactory. When trains have been stopped for the 5 mm reading on one end of an axle, the case was usually low oil or of a nature that the car could have moved on into the yard without mishap. In one two-week period, 200-300 cars were found to pass the scanner site with the 5 mm reading on one end of an axle. What value do you suggest be used for the critical detector reading?

Karlet: We have no fast rule on yard inspection systems. Our supervisory mechanical department people check the charts. And, of course, when they do so the train is already stopped and in the yard. Anything the least bit above normal is checked.

Chatten: Hotbox detectors at yards are a tool, which the mechanical department will learn how to use. If a journal is low on oil, it better be looked at, particularly if the car is equipped with journal lubricator pads.

Troth: At our yards, the car inspector foreman checks the tape. We find the detector finds hotboxes that could not be found by any other means. Of 378 hotboxes indicated, 199 were of the type that would not be found by ordinary inspection methods.

Can Communications Be Integrated?

A new concept in communications—the electronic switching center—promises to help provide integrated communications to unify and improve railroad operations. A panel of railroad men and manufacturers' representatives probed the outlook for integration of communications — and some of the problems to be solved—at a recent meeting of communications and signal engineers in Chicago. Here's how they view the situation.

Evans: What we are after is the better use and better interconnection of communications circuits to provide maximum reliability and economy.

Karvwatt: A new concept in communications is the electronic switching center which will accept any language, translate it for switching purposes, and send the information out in understandable language for either machine or human usage. The electronic switching center opens the door to integrated communications.

Wern: Equipment is here today for solid state, real time, on-line stored program electronic switching. These devices must be human oriented—the machine cannot replace the man.

Laurenson: High-speed data handling and high-speed switching have related problems. For example, to use electronic switching and data handling, we would have to translate waybill information into machine language, keeping in mind that we have 300 originating points and 150 interchange points on our railroad. How do you go from waybill language into machine language cheaply, accurately and quickly?

Parkington: We have equipment available, but how to use it is not fully realized. There is a need for analyzing the problems to be solved. Data collection at the source is one problem—that is, data must be identified and it must be collected.

Laurenson: Let's not forget the hard facts of life. What goes into the monster

PANEL MEMBERS

Railroad and supplier representatives on the integrated-communications panel were: T. M. Evans, communications engineer, Chicago & North Western; R. C. Karvwatt, director of communications, New York Central; E. B. Wern, senior account representative, Informations Systems Division, International Telephone & Telegraph; R. M. Laurenson, superintendent communications, St. Louis-San Francisco; E. L. Parkington, assistant director of engineering services, Western Union Telegraph; G. W. Brown, assistant product line manager, Collins Radio Co.; H. J. McMains, administrator data communications planning, American Telephone & Telegraph; A. F. Perkins, chief of advanced development, General Dynamics/Telecommunication; P. A. Flanagan, superintendent communications, Chesapeake & Ohio; and M. F. Black, superintendent communications, Denver & Rio Grande Western.

comes out. You have people involved, who may not make accurate translations or coding, and some don't care. In light traffic areas you would have lots of equipment standing around.

Karvwatt: We shouldn't let the problem of data collection stop progress. For example, just the elimination of manual relaying of messages would be a big advance.

Brown: Too often a job is found to fit a particular machine. This should not be. Rather, you should fit the machine to the job to be performed.

McMains: The key here is that the communications men have a chance to help management better operate the business. Communications men should get to know systems and procedures people. An important question is: what does a company really want to do? Switching machines and the communications circuits that go with them are expensive. Therefore there is a great need for proper planning.

Perkins: It is not just a simple replacement of your present system or method of communications with an electronic system. New thinking may be required, and certainly any new electronic system must be economical.

Flanagan: Can a railroad afford these machines, and what would the cost of integrated communications be?

Brown: You can't afford not to have integrated communications. Costs would range anywhere from $100,000 to several millions of dollars.

Parkington: We must make an economic solution to this problem of data collection. High cost units might be shared.

Karvwatt: An evaluation of an electronic automatic message switching system for which we have contracted, shows that direct tangible savings will amortize the equipment in one year.

Perkins: Real time switching is nothing more than getting information to where you want it in time to take action.

Black: An area of big savings could be found if several railroads would get together and share equipment. A great deal of money is spent by railroads in checking each other on interchange data. One method to reduce this amount of checking and costs would be to have five clearing offices in the U.S. to handle all interchange.

Karvwatt: Automatic switching is just part of the problem. Certainly individual roads could group together and solve some of these problems. In this general area of integrated communications, the railroads' communications departments should provide a service to take care of other departments' needs.

Laurenson: Communications men are specialists, but they had better find out how railroads are operated and learn about other departments' operations.

RAILROADING AFTER HOURS WITH JIM LYNE

DISCERNING TRAINMAN—Trainman Norman Orfall on the SP's San Joaquin division has sent me a circular he found in a switch shanty at Mojave, Calif. It is headed "Save the Locomotive Firemen." It lambastes the "Kennedy ICC" for authorizing the pulling off of red-ink passenger trains. It knocks the standard railroad unions for their attitude toward Negro labor. It speaks kindly of Hoffa, and decries U.S. "imperialism" towards Cuba. A plain piece of Commie propaganda, I'd say.

Mr. Orfall enclosed a newspaper clipping—defending subsidies to agriculture—on the grounds that ships and planes are getting them (and it even trots out the ghost of the old railroad land grants, which were no subsidy).

To me, this subsidy thing—handouts for trucks, barges and what have you—is more dangerous as a socializer than the Commies are. The Commies, at least, don't sail under false colors, as business-men socializers do. I congratulate Mr. O. for his alertness. I could only hope that all railroaders were as keen-sighted as he, in uncovering operations by The Enemy.

MICE—SU, KD, OR KU?—On the complaint of Barge Spokesman Creedy against the British Railways, for alleged overcharging for mouse transportation (RA, Oct. 29, p. 49)—S. Lancaster offers the following:

"There are several ways of shipping mice. The applicable rate on 1 Mouse, SU, loose or uncrated, LCL, might be rather high. Shipped loose, LCL, the mouse would require 'exclusive use of car'—and this would involve added carrier expense quite apart from paper work and insurance.

"On the other hand, Mice, in boxes, CL, or Mice, KD flat, in boxes, having value for fertilizer purposes only, CL, could be handled rather cheaply, at least on a per-mouse basis.

"In each of these three cases, the cost per mouse-mile would differ widely, so that an attempt to correlate mouse-miles with passenger-miles must take into account the kind of mouse that is being shipped. Furthermore, the passenger is self-propelled, while the mouse, if boxed, must be lifted, lowered and stowed, and, if loose, must be led on a leash. Even a barge operator would make some distinction between 1 Mouse, unboxed, and 100 Mice boxed or crated."

ARMY ENGINEERS AND REAL ESTATE—The chief executive of a railroad that operates in the Missouri valley (as well as a large number of other places) has sent me an enlightening clipping from the Oct. 16 Omaha World-Herald. It shows an Army Engineers' "survey boat" with 74 Iowa and Nebraska industrialists aboard—being taken on a 57-mile river excursion—and invited to look over attractive riverside industrial sites.

The Army Engineers have, to my way of thinking, got far away from their proper duties when they engage in the river-channeling business. And now, they've apparently taken on real estate agentry as a further side line. I hope they're not neglecting their military duties, as they divert themselves with these sideshows.

I can well imagine what a howl would go up if the Infantry (for example) should take up some similar sideline, such as promoting the sale of, for instance, automobiles—and especially if they'd promote the sales of one manufacturer, as against the rest. This latter course is the one the Army Engineers are pursuing in transportation, against the railroads—and hardly nobody seems to see anything immoral in their behavior.

SOUNDS OF THE 'GENERAL'—O. Winston Link, the photographer and sound-recorder of locomotives (58 E. 34th Street, N.Y.C.) has sent me a 45-rpm sound recording of the famous old Western & Atlantic (now L&N) locomotive, the "General"—which he is retailing at the price of $1.50. The jacket in which the recording is enclosed has on it a handsome color reproduction of the locomotive. This record is No. 5 in the series of Link's recordings of steam locomotive sounds. One hoot of the "General's" whistle is enough to take any old-timer back to his boyhood. Railroading as a whole has improved a lot since those days—but not railroad sounds. There are approximations to the old sounds, but none as pleasantly exciting.

What Is the Role of Competition

By J. A. BLISS*

Current problems in the transportation of energy present to people in the business a series of "moving targets." This term was first used in energy economics several years ago to describe technological progress in converting conventional fuels into electrical energy.

Now atomic energy has entered upon the scene to provide further complications. Estimates of the future year in which the "orbit" of atomic energy costs will intersect that of the costs of conventional generation and movement of power have tended to be postponed. But probably for not much longer.

Every computation concerning the transformation of other forms of energy into electricity and transportation—before or after conversion—must be reworked over and over, because every ratio is subject to change.

For years, railroads were not a part of the moving target. They were "sitting ducks" for competitor after competitor. The first step in analyzing the economics of a new transport project used to be to check out the rail rates. The coal pipeline has changed all that—especially since its dramatic technological breakthrough in November 1961. Now railroads have their own "moving target" in the form of the "integrated" or "unitized" train.

Unlike barge operations, pipelines are not proposing "unfair competition" in the sense which railroads have hitherto used that term. Pipelines would, that is, provide their entire transportation plant and pay taxes on it—and not get their fixed installations as a gift from government, as barge operators do. The same is true of the third competitor for volume coal transport, the UHV (for ultra-high-voltage) transmission line—unless it happens to belong to "public power" and thus enjoys tax-exemption.

Growth in electric generation has been accompanied by an even faster concentration in location. In 1961 there were 51 stations each burning more than a million tons of coal. Their total burn, 89¼ million tons, was just about half the coal consumed by the electric utilities. Only one year earlier, in 1960, there were only 43 such stations and their total burn, 75½ million tons, was about 43% of electric utility coal. Going back to 1950, we find only 18 stations burning 22.6 million tons, less than 25% of the electric utility total.

The reason a cut-off point of one million tons is observed is that figure gives a rough indication of the point at which coal pipelines or UHV transmission can be seriously considered. There must be heavy concentration of production at one point to make these two forms of energy transmission attractive.

These larger coal burns and larger "blocks" of transportation are only one aspect of economies of scale—which could be also illustrated by size of boiler-generator units.

Whatever the precise economies, the trend is towards larger and larger units. A recent tabulation by the National Coal Association of the 1962-65 construction program lists 29,675,180 kilowatts of steam-electric installations. This is somewhat more steam capacity than was in existence in 1941. Only 4% of this capacity is in installations less than 100,000 KW, mostly for sparsely populated areas. Four times as much capacity, 16%, is rated 500,000 KW or over. Seventy per cent is 200,000 KW or over. This is a significant figure because, as late as 1955, there was only one machine in this size range in the entire country.

Large coal users

Some 35 of the generating units on the 1962-65 schedule are each capable of consuming about a million tons of coal (or the equivalent in other fuels) per year—a roughly estimated total of 42 million tons. The whole lot of 1962-65 units will require 89 million tons.

Offhand, this looks like plenty of business for everybody, so why worry? But it isn't going to be like that. There are differences between old generators and new generators, old plants and new plants.

The practice is increasing of turning over day by day (micro-second by micro-second is more accurate) operating decisions to computers. Computers are well suited to the intricate decisions as to which generators should carry more or less load as the demands of consumers at various locations fluctuate. In this short-run situation every generator is competing with every other (and with hydro, purchased power, etc.) with such excellent communication as to approach the "perfect competition" of a "free market." The computer finds out where the most economical power can be had from second to second, and that's where the power comes from.

The principal factors are *incremental* fuel costs and *incremental* transmission costs, but both types are themselves variables. That is, incremental costs increase rapidly if either a generator or a section of transmission line is loaded above an optimum degree.

These highly complex but highly effective efforts to minimize costs for reliable service are, of course, affected by accidents and special situations, but the usual result is to draw on the power of newer generators much more than on the older ones. Thus, on a well-designed and well-connected power system half of the generating capacity might produce over 75% of the current—the other half, less than 25%.

Stated differently, optimal system costs turn out to involve a mixture of a large amount of power at low unit cost times large volume, plus a smaller quantity of high unit cost times low volume. For example, a station called Clinch River had in 1960 fuel costs of 1.54 mills per kilowatt-hour and operated at 91% of its rated capacity. The highest fuel costs on the same interconnected system were 3.15 mills at Twin Branch, which operated at only 22% of its capacity. The reported costs are *average*, but *incremental* costs would bear about the same two-to-one relationship.

Why not just close down Twin Branch and similar plants? A good many smaller and older stations have been retired, but plants of the general character of Twin Branch play a vital role in power systems, carrying the nearby peaks, providing reserves for various emergencies—in general giving flexibility.

Attention by a power company to do-it-yourself competition includes a rate structure which does not charge a customer with any more of the expensive "flexibility" facilities and services than must actually be incurred in his behalf. Large do-it-yourself projects not only are likely to require less "flexibility" but may have access to economies of scale that may often exceed those available to the nearest public utility.

The results of a rate development that was by no means simple may be stated without too much oversimplification as: "Large customers get the lowest rate. But small customers get the biggest bargains."

Bargains are greater if measured against what it would cost the small customer to generate his own electricity. These bargains are still substantial

*Mr. Bliss is a consultant who devotes particular attention to costing and pricing problems of electric utilities and railroads. His address is East Greenbush, N.Y.

in Transporting Utility Fuel?

in terms of what utility service would cost the average user if a bigger ratio of the larger users were "rolling their own." Whether this relatively favorable treatment of the small—favorable especially as compared to merely "meeting competition"—is "economic" or "moral" (RA, Sept. 3, p. 38) is immaterial.

An electric utility with a mine-mouth plant and UHV transmission is, of course, becoming a private carrier differing only in degree from private carriage by truck or barge.

Differences in degree

But when you compare a transmission line built for the purpose of reducing freight bills, with trucks operated for the same purpose, the differences in degree are startling. To get economies of scale in UHV transmission for appreciable distances you have to start at around one million annual tons. But, unlike the relatively modest economies of running two trucks instead of one, economies of scale keep on mounting.

To illustrate: If a transmission line can transport one million tons a given distance for $4 per ton, a new line could be constructed to transport four million tons for about $2.20 per ton.

The above rough illustration assumes 40 cents per ton (initially 10% of total costs) as direct or incremental costs. The second big difference between UHV transmission and the private truck is that UHV costs are largely fixed costs while truck costs are largely incremental—varying directly with traffic volume.

The third important distinction is in service life—with its effect on such costs as depreciation and interest on borrowed money. There is no real evidence of total service life of a transmission line except that it is most certainly greater than the 30 years of a typical power company bond issue.

Incentives to "take care of one's own first" to put optimum loads on private transport facilities and expect common carriers to take care of the fluctuations—are characteristic of all private transportation, but would affect transmission lines in aggravated form.

In the short-run decisions, as to whether to generate at "mine-mouth" plant A or at "load-center" plant B, the computer would ordinarily be comparing *incremental* transmission costs from plant A with full-rail *rates* into plant B. In any case in which a transmission line is likely to be built, there could be little doubt as to the short-run decision *up to the point of optimum loading* on the transmission line.

There are, to be sure, some cases in which rail rates for incremental tonnage are somewhat lower than for the initial tonnage. While these are extremely valuable in terms of regulatory precedents, it is very doubtful that any rates could be constructed to give much competition to a transmission line *after it has been built.*

There has been nowhere near as much published about coal slurry pipelines as about transmission lines. In some respects, e.g., to what extent slurry pipelines will be a common carrier, the pipeline may occupy a position intermediate between the transmission line and the railroad. Many of the economic characteristics of the pipeline appear quite close to those of the transmission line.

Several factors suggest that pipeline rates will more nearly resemble transmission line costs than they will resemble orthodox railroad rates.

It is difficult to imagine pipeline rates and practices which would make the railroad problem essentially different from the one that has been emphasized with transmission lines. That is, pipelines would be almost impossible to compete with *once they are built.*

In other words, long-term competition in this area involves many distinctions from short-term competition.

One distinction arises from different decision rules in the construction side of the electric utility industry. Where short-term operating decisions would use certain ranges of *incremental* cost, free from "fixed charges" the corresponding long-term decisions take all costs into account. "Fixed charges" are a most important factor in balancing higher investment with lower operating costs against lower investment and higher current costs. For this purpose for most power companies, "fixed charges" would be in the 12%-14% range including not only 6% or so for "fair return" but depreciation, federal income taxes, local property taxes, some maintenance—all expenditures that are anticipated in proportion to dollars of investment. Both "fixed charges" and corresponding running costs necessarily involve predictions as to the future. That is, at least part of the justification for one UHV transmission line seems to have been anticipated railroad rate increases.

Coal slurry pipelines, at least until they have well-seasoned securities, will probably need to allow for somewhat higher "fixed charges" than transmission lines and (in the present state of technology) they will have to earn these charges entirely from the transportation of coal. The same is, in effect, true of transmission lines.

Railroad facilities, on the other hand, can handle a wide range of commodities other than coal and many, but not all, of the facilities to be used by "unitized" trains would actually also be used by other commodities. There is, therefore, a problem of sharing "fixed charges" which railroads are inclined to resolve in the direction of allowing their traffic departments maximum flexibility in naming rates.

"Fixed charges" on "sunk" investment are generally lower, especially where no federal income tax is incurred or past security holders have surrendered claims.

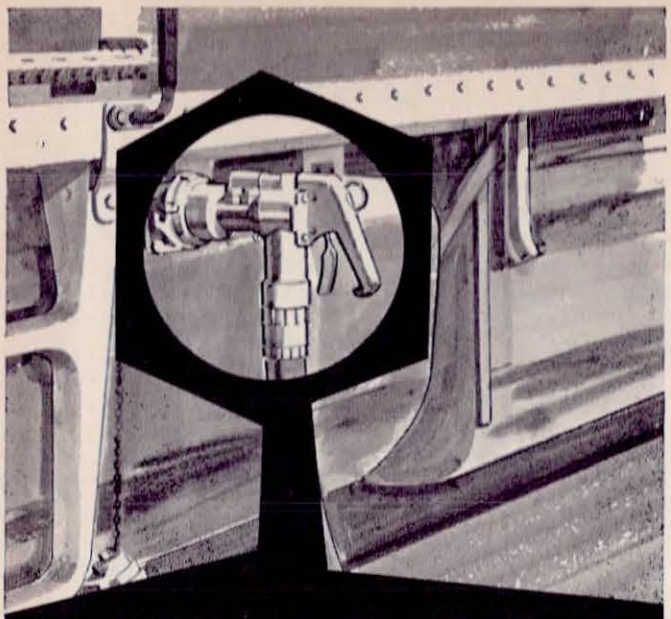
Flexibility vs rigidity

Most of the prevailing theories tend to make railroad "fixed charges" quite flexible, as compared to the relatively rigid requirements for pipe or transmission lines. This means that the railroads could name rates below *full* costs of almost any proposed UHV line, even though it is unlikely that they could meet the *incremental* costs of such a line.

The future cannot be predicted with precision, but power companies are in a spot where they have to try. Hence, anyone who expects to serve them as purveyors or carriers of fuel has to try to predict too. One useful trick developed by power companies is to draw up a map of their system for 196?. This is much more likely to become realistic for some one of the years 1966, 1967 or 1968 or 1969 than if a particular year is specified.

Similarly, the three main competitors (plus such added starters as atomic energy) should focus their attention on the energy transportation market for 196? If the patterns of the past 15 years continue, the prime business in the transport market for 196? will be supplying fuel to generators still "unborn."

Let us assume, for illustration, that all new generators are "mine-mouth" and all old generators "rail." The same general pattern might be applied to



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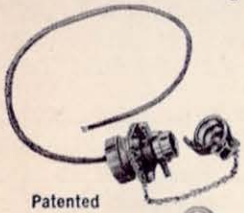

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"slurry" vs "rail."

But if "new" means "mine-mouth," the fifth year of growth would see the mine-mouth system amounting to 32% of capacity, but generating 53% of the load and using 51% of the coal. The older—"rail" in this illustration—fuel movement would have shrunk to only 67% of what it was in the base year.

It would be the ninth year before "mine-mouth" capacity amounted to 50% of the system. But by that time the mine-mouth plants would be generating 78% of the system load and consuming 76% of the coal. The older 50% of capacity would only be producing 22% of the kilowatt hours and the coal movement would be only 43% of what it used to be.

There is no clear line of demarcation between "rigid" or "base" and flexible, but by the 15th year the older capacity would be operated only to give the necessary flexibility to the power system. It would still consist of over 30% of capacity, but would be producing less than 7% of total output. The coal movement would have fallen to less than 20% of that of the base period. Most of these generators are, of course, more than 15 years old, and eventually some of them will be completely retired. However, equipment dated 1906 was still in stand-by service in 1958!

Decline in consumption

The gradual decline in fuel consumption may also be illustrated by means of a relatively modern unit now burning coal at the rate of a million tons a year. According to the pattern, this pace would keep up for the first five years only and would then drop, so that half of the 13¼ million tons to be burned in 30 years would have been burned by the end of the 7th. It would take the last 11 years (20th through 30th) to equal the consumption of one of the first 5.

This pattern looks too dismal. It is, for two reasons. First, the power companies will be taking steps to improve the overall productive life, especially of relatively modern and efficient units. Secondly, transportation loads do not go only to single generating units but to plants which may include equipment of different ages.

There are many other ways of providing flexibility in a power system than by continuing to use older equipment on a stand-by basis. Even jet engines, like the airlines use, are being tried. Diesels, like those used on railroads, have been strongly promoted, but so far all of the diesels owned by all of the power companies (small municipal plants have quite a few) would not add up to two good-sized steam units. "Pondable" hydro—i.e., water that is held back on nights and weekends—if available, provides a convenient way of carrying peaks and allows steam plants to operate more nearly at optimum loads. Some modern steam units have built-in overload capacity. Using this capacity costs more than it would at an optimal rate, but far less than running an ancient unit for the same period of time.

A most interesting development is the improvement of "pumped storage" hydro which permits the use of a modest amount of water over and over. The nearest efficient steam station would have to burn about 3 tons of coal "off-peak" in order to produce the electrical equivalent of 2 tons available "on-peak." If the 3 million-odd kilowatts of such capacity, that are now scheduled for construction, should work out as well as expected, "pumped storage" hydro could become an important ally of the coal industry and of whatever transport agencies are serving the steam plants that will burn the extra coal—far enonugh "out of town" to require at least some transmission. Millions of dollars for UHV research are obviously justified. But will this research result in 20-mile transmission lines or 200-mile transmission lines?

Amounts reported as "Land and Land Rights" vary from over $4 per kilowatt "downtown" to less than 10 cents per kilowatt for plants of comparable size in the "country." Thus, while there have been cases of old machinery being ripped out and modern ones put in, it should be fairly obvious where the major expansions for 196? and 197? are going to take place. Many recent site announcements involve hundreds of acres.

Pipeline rates and "unitized" train rates might be able to provide at least partly off-setting incentives. Rivals though they may be for service to a "load-center" plant, they are allies against the transmission line on the basic matter of plant location. That the transmission line is still in the running, despite the greater publicity given to slurry and unitized trains, is shown by the fact that Cleveland Electric Illuminating (which has been the beneficiary of the first pipeline and of substantial competitive rail rate reductions) has announced that its next big generator will be located on the Ohio River, opposite Wheeling, W.Va.

Pipelines and railroads share a common advantage over transmission lines in that coal may be stored at destination. The custom of maintaining 60 to 90 days supply of coal near the boilers probably arose in the days when John L. Lewis used to pull his miners out every year, but it is good insurance against various kinds of emergencies. Coal near load centers is much more valuable than coal at a "mine-mouth" plant 200 miles away. It will no doubt cost a lot more to build tanks to store slurry than to provide land on which to pile coal, but slurry should cost considerably less to handle.

Both forms of storage could be used to make the transportation flow by either rail or pipeline much more "rigid" or regular than the actual burn by the plant. This can be taken for granted in terms of hours, days and weeks, but could be extended to smooth out longer periods, given incentives.

Indeed, considerable coal could be "off-peak" if the railroad or pipeline considered it worth while to recognize and define "off-peak."

These possible uses of storage extend to older plants. Indeed in some cases, the older the plant, the greater proportion of its storage capacity it could devote to making the coal flow fit the convenience of a railroad. (It would hardly pay to build tanks at a very old plant to store slurry.)

As was stated initially railroads are characterized by relative flexibility. transmission lines and pipelines by relative rigidity. "Relative" is a key word. It means that for any pipeline or transmission line there is an optimum rate of flow. This probably cannot be determined as accurately in the design stage as after actual operation, but the operators will be acutely conscious in going above or below the optimum flow. There is flexibility, but at a cost.

'Sell flexibility'

Unless bottlenecks are encountered, similar economic penalties in railroading are undoubtedly less than for pipe or transmission lines, but this does not mean that they do not exist. In other words, railroads can provide flexibility relatively cheaply, but this does not mean it costs them absolutely nothing. In this market, the best railroad strategy would appear to be to sell flexibility at reasonable prices, but never—if they can possibly help it—to give flexibility away.

Anyhow, the important point is that fuel for the generation of electric power is in a state of continuing change.

It is not one of those problems that can be solved once for all—because, no sooner is the right answer found to one particular problem than the problem itself changes. The unitized train may solve most current problems—but what next is coming up in the way of UHV transmission and slurry pipelines?

LETTERS FROM READERS

Cut LCL Duplication?

East Barre, Vt.

To the Editor:

I have noted with interest your article, "Southeast Shippers Back Single Agency" [RA, Sept. 24, p. 67].

I am opposed to this plan for the handling of less carload freight because I believe that the individual railroads involved would lose most of their interest in the project once the LCL is turned over to the agency, much like the case of REA Express.

Instead, I would like to propose an alternate plan. Under this plan, the railroads would get together and agree (subject to the approval of the regulating bodies) to drop all duplicating LCL facilities, except those in the largest cities like Boston, New York, Chicago, etc.

Under this plan, each railroad would continue all non-duplicating facilities as before. In cities and towns served by two or more railroads presently handling LCL, only the railroad which could most easily and/or logically provide the service, would handle LCL. The traffic would also have to be divided as equally as possible.

The plan would be administered by a committee composed of a representative from the traffic department (and possibly the operating department) of each railroad. This committee would be responsible for setting up all rules, rates, routes, and divisions in connection with LCL and issue a tariff for the purpose. This committee might also serve as a guide in setting up facilities and practices for faster handling of LCL.

This arrangement would give many of the advantages of the single agency idea, but would put the major responsibility up to the carriers themselves.

I believe in LCL and I think it could be put on a paying basis.

Charles A. Niles, Jr.

A Question of Compensation

Cleveland, Ohio

To the Editor:

The Action Page in the Oct. 22 issue of Railway Age brings up a good point about government activity that destroys railroad jobs and reduces or eliminates shareholders' equity in railroads.

Recently the courts have awarded property owners various sums of money in regard to damages to residential property resulting from the construction of airport facilities nearby. The usual argument is that the flight path passes over said property, and the nuisance and noise of the passing aircraft reduce the value of the property to the owners' loss.

Now, just how different is this sort of loss as compared to loss of business by railroads due to the construction of the very same airport facilities? Here is a case worthy of study by some astute lawyers.

I suspect the reason behind any argument may boil down to the fact that homeowners vote and corporations do not vote. The situation is nonetheless worthy of investigation.

J. William Virgass

On Job Reduction Programs

Lafayette, Ind.

To the Editor:

The manner in which the railroad managements are proposing to reduce expenses by eliminating certain jobs in train and engine service so that they are able to continue operation and provide employment for the employees with ten or more years of service seems to be a fair and healthy proposal.

With railroad transportation requirements having decreased considerably over the last twenty years, it is the opinion of the writer that few existing employees in train and engine service at the present time have less then ten years' service, therefore, very few employees would lose their jobs; and the provision that reduction of employees would only occur as retirements, resignations, or deaths occur, would not hurt the rank and file of employees. If this is not done now, while it could be done in a manner which the employees would suffer the least, the time will no doubt come, in the not too distant future, when mass job losses will occur and we could be out of business.

A study of the railroad employees will prove a steady reduction of employees over the last twenty or thirty years and this has been due to a declining amount of business coupled with a spiral of wage increases. Had this not been done and with the reduction in revenue, I do not believe a railroad in the United States could now be operating as a private transportation facility. Without some subsidy, no doubt there would be no railroad employees at the present time.

We are in a very competitive business and no business can thrive under present conditions without the practice of all economy possible.

C. R. Williams

'Wheels are Turning'

Peoria, Ill.

To the Editor:

I don't know how many copies of your magazine I have read and enjoyed, but I do know I've never taken the time to tell you what I think of the magazine. . . . I find your publication most enjoyable. Articles are of current interest and editorials are hard hitting. "After Hours" and "The Action Page" are excellent. In the Aug. 27 "After Hours," the bit on "Recognizing Employee Efficiency" really made sense. I agree 100%. Unfortunately, I don't see how this will ever come to pass.

Your "Action Page" recently on featherbedding spurred me to write my Congressman. So you see some wheels are turning.

Dana Throckmorton

PORT AUTHORITY TRANS-HUDSON CORPORATION

RAIL RAPID
TRANSIT VEHICLES
PATH CONTRACT NO. 120.001

Sealed proposals for the construction, furnishing and delivery of multiple unit rapid transit cars for the Port Authority Trans-Hudson Corporation will be received in the office of the Vice-President and General Manager, Room 1109, 111 Eighth Avenue, New York 11, New York, until 2:30 P.M. on Monday, January 7, 1963 at which time said proposals will be opened and read in Room 1108.

Contract Documents may be seen at the office of the Chief, Rail Planning Division of The Port of New York Authority located at 259-265 West 14th Street, New York 11, New York, 8th Floor. Documents will be furnished in reasonable quantities upon written request.

PORT AUTHORITY TRANS-HUDSON CORPORATION

S. SLOAN COLT, *Chairman*

Dividends Declared

CLEVELAND & PITTSBURGH.—7% guaranteed, 87½¢, quarterly; 4% guaranteed, 50¢, quarterly, both payable Dec. 3 to holders of record Nov. 9.

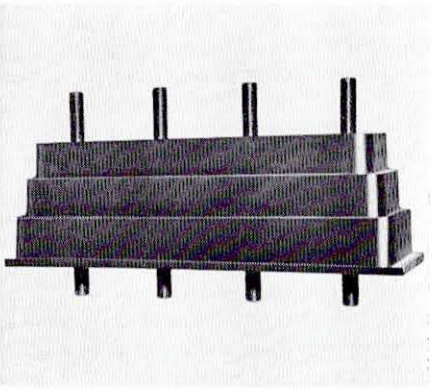
ONTARIO & QUEBEC.—$3, semiannual, payable Dec. 1 to holders of record Nov. 1.

RICHMOND, FREDERICKSBURG & POTOMAC.—guaranteed, $1, quarterly; $1, extra, both paid Oct. 9 to holders of record Sept. 28.

ST. LOUIS-SAN FRANCISCO.—25¢, quarterly, payable Dec. 17 to holders of record Dec. 3.

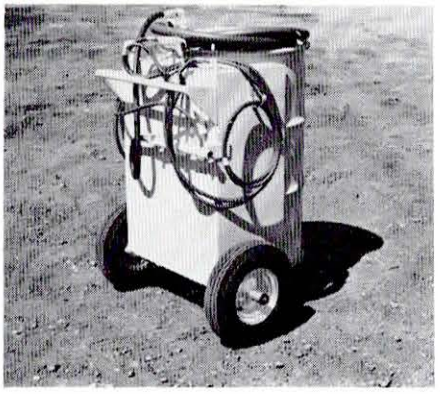
WEST JERSEY & SEASHORE.—common, $1.50, semiannual, payable Jan. 2 to holders of record Dec. 14; special guaranteed, $1.50, semiannual, payable Dec. 3 to holders of record Nov. 15.

NEW PRODUCTS REPORT



Cushioned Deck (RA-1)

The Dyna-deck system converts any standard flat car, box car, or gondola to cushioned service through the use of high-strength bonded rubber mountings attached to existing car frame. Maximum longitudinal shock transmitted to lading on a fully loaded car under 10 mph impact is said to be less than 3.5 G's. Cost of a conversion is estimated at about 10 to 20% of the price of a new car with equivalent shock protection. *Lord Manufacturing Co.*



Mobile Cleaner (RA-2)

Compressed air operates the P-M mobile journal-box cleaner. Oil is removed from box by suction, and a scraper removes debris from lids and around face of box, vacuuming the material so it does not fall on the rip track. A separate tank and spray attachment is used to clean the journal box and lid with oil or thinning solvent. This solvent is also picked up by vacuum. Receiving container holds approximately 25 gallons of oil and debris. *Paxton-Mitchell Co.*

Portable Space Heater (RA-3)

A rotary burner, low-pressure fuel system and a Moyno screw-type fuel pump with only one moving part feature the Thor No. 155 portable space heater. Heat output varies from 75,000 to 125,000 Btu. Fuel capacity is 12 gallons, providing 22 hr of continuous burning at low heat, 13 1/2 hr at high heat. Glow-coil ignition and a split-phase electric motor are said to assure easy starting in coldest weather. *Thor Power Tool Co.*

Metal Coating (RA-4)

A non-yellowing metal acrylic coating can be applied to non-ferrous as well as ferrous metals to prevent pitting and rusting, and to preserve the original brightness, color and surface of the metals. It can be applied by spray gun or brush, or baked onto metal panels. The coating is said to have strong adhesion under varying temperatures and is recommended for aluminum and stainless-steel railroad cars. *Armstrong Paint & Varnish Works.*

Microwave System (RA-5)

The TRS 660 microwave system has transistorized RF terminals and facilities for voice, data, teletypewriter, facsimile and other communications applications. It operates over 5,925-8,400 mc with a baseband capable of accommodating up to 600 voice channels. Total transistorization reduces power drain in the TCS-600 multiplex-carrier system. Parallel active circuits take over instantly if channel equipment fails. *General Electric Co.*

Battery Separator (RA-6)

The Skip Rib separator for the Thirty Ten industrial battery allows free passage of electrolyte vertically as well as horizontally. The intermittent rib pattern allows the electrolyte to flow freely in all directions across the face of the plates. With more active oxide exposed to free-flowing electrolyte, according to the manufacturer, more power is delivered by the battery more rapidly, also over longer periods. *Gould-National Batteries, Inc.*

RAILWAY AGE WEEKLY

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PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGES 41 and 42 MARKED
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RA-8 RA-9 RA-10 RA-11 RA-12

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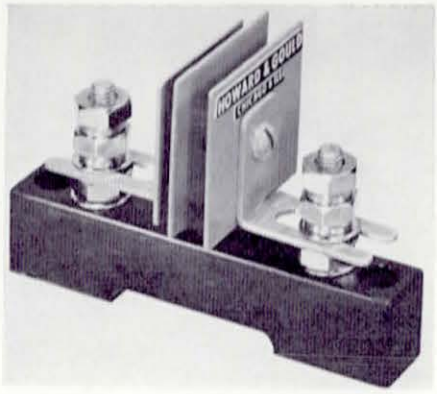
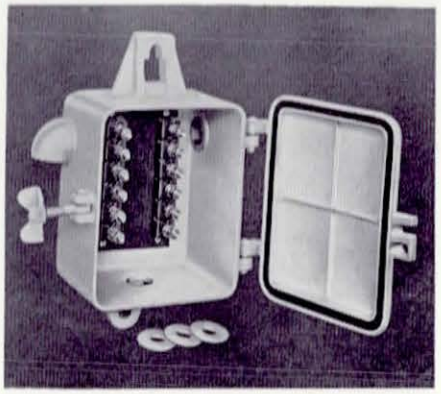


Half-Wave Rectifiers (RA-7)

Styles HV and HS small half-wave rectifiers may be used for circuit polarization, relay snubbing, contact arc suppression, motor snubbing or for use on AC-DC primary battery track circuits. Each unit is arranged with brackets and connecting leads for mounting on relays, motors, a terminal base or on AAR signal binding post. The DC valve ratings are 24 and 13.5 blocking volts with maximum amperages of 0.15, 0.30, 0.60, 2.0 and 1.0 *Howard & Gould Co.*



Aluminum Housings (RA-8)

A new line of aluminum housings features light weight, ease of installation, a variety of sizes and is practically maintenance-free. A typical unit is No. 425-2, which has inside dimensions of 9 in. high, 7 in. wide and 5½ in. deep. Mounting bolt holes are 11/16 in.diameter and are on 13⅝-in. centers. Cable entrance is 1⅜ in.-diameter, but other sizes are available. No 425-2 weighs 11 lb, compared with 27 lb if made of cast iron. *Railroad Accessories Corp.*

Microwave Tower (RA-9)

A tower for microwave and other heavy-duty installations, the Rohn No. 80, is constructed in an equilateral triangular pattern of 3½ ft with the tower legs varying in tubular steel from 2 in. to 4 in. to meet the requirements of the installation. This tower is completely hot dipped galvanized and available for installations up to 800 ft when using the proper size and weight of the tubular steel components. *Rohn Mfg. Co.*

Welding Electrode (RA-10)

The Murex Speedex 27 iron powder E6027 type electrode is designed to produce sound fillet, lap, butt and cover pass welds at high speeds in downhand and horizontal positions with a-c or d-c current. It is said to feature deep penetration, good weld bead shape, and substantial coating heat capacity for high currents. Deposits meet physical property and X-ray soundness standards of pressure vessel codes and military specifications. *Metal & Thermit.*

Mobile Radios (RA-11)

New compact 150-mc VFH mobile radios have been added to the Fleet Line equipment originally offered by RCA for 450-mc operation. The new models feature transistorized power supply; 6/12-volt interchangeability; and standby monitoring for battery-saving operation. The speaker has been combined with the compact control head, which also contains a transistorized power supply. *Radio Corporation of America.*

Teleprinter Monitor (RA-12)

The DQM-8 teleprinter data quality monitor watches incoming teleprinter signals for marking and spacing distortion constantly. Whenever it sees distortion in the line, it operates the alarm lamp and a set of contacts which can be used in any number of applications. The relay contact operation of the DQM-8 may be relayed back to a central office through spare channels. Telegraph speeds handled are 60 to 150 wpm. *Atlantic Research Corp.*

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11/12/62

Market Outlook

Carloadings Down 1.0% From Previous Week's

Loadings of revenue freight in the week ended Nov. 3 totaled 608,614 cars, the Association of American Railroads announced on Nov. 8. This was a decrease of 6,018 cars, or 1.0%, compared with the previous week; a decrease of 10,821 cars, or 1.7%, compared wtih the corresponding week last year; and an increase of 9,059 cars, or 1.5%, compared with the equivalent 1960 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, November 3

District	1962	1961	1960
Eastern	84,118	89,196	83,901
Allegheny	95,818	102,861	96,177
Pocahontas	51,549	54,740	47,786
Southern	117,767	115,218	114,536
Northwestern	81,892	82,509	81,029
Central Western	134,048	130,587	132,123
Southwestern	43,422	44,324	44,003
Total Western Districts	259,362	257,420	257,155
Total All Roads	608,614	619,435	599,555
Commodities:			
Grain and grain products	66,378	56,266	68,008
Livestock	7,874	8,384	9,031
Coal	110,069	112,424	104,495
Coke	6,031	7,865	5,900
Forest Products	38,541	38,384	36,568
Ore	30,313	38,105	33,580
Merchandise l.c.l.	21,639	27,825	34,795
Miscellaneous	327,769	330,182	307,178
November 3	608,614	619,435	599,555
October 27	614,632	647,549	620,807
October 20	613,223	650,958	637,573
October 13	606,778	642,155	653,277
October 6	594,722	639,784	645,986
Cumulative total, 42 weeks	24,605,875	24,284,285	26,437,192

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Oct. 27 totaled 15,128 cars, compared with 13,449 for the corresponding 1961 week. Loadings for 1962 up to Oct. 27 totaled 583,302 cars, compared with 484,908 for the corresponding period of 1961.

IN CANADA.—Carloadings for the seven-day period ended Oct. 21 totaled 75,015 cars, compared with 66,822 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Oct. 21, 1962	75,015	22,707
Oct. 21, 1961	75,395	23,690
Cumulative Totals		
Oct. 21, 1962	2,889,209	963,596
Oct. 21, 1961	2,824,281	982,406

New Equipment

FREIGHT-TRAIN CARS

► *Louisville & Nashville.*—As part of its car restoration program, will begin in mid-November to rebuild 500 50-ton coal hopper cars at its South Louisville Shops. Pre-assembled car sections will be supplied by Pullman-Standard's Bessemer, Ala., plant. Completion of 12 cars per work day is scheduled.

► *Santa Fe.*—Ordered 500 70-ton, 50-ft insulated box cars from Pullman-Standard at a cost of approximately $9,000,000. The cars, to be built at Pullman-Standard's Michigan City, Ind., plant beginning the week of Dec. 10, will be equipped with roller bearings and cushion underframes. The order is part of a $20-million equipment program announced earlier (RA, Sept. 24, p. 63).

► *Seaboard.*—Ordered 625 new freight cars at a cost of $8,240,000. The order includes 300 50-ft, 70-ton box cars with cushion underframes and load securing devices, to be built by Pullman-Standard at Bessemer, Ala., at a cost of $4,590,000. Magor will build 25 jumbo aluminum covered hoppers at its Clifton, N.J., shops for $625,000. The 100-ton cars are the first with all aluminum bodies purchased by Seaboard. Thrall Car, Chicago, has a $2,375,000 order for 250 70-ton woodrack cars with fabricated steel underframes. An additional 50 woodrack cars, with cast steel underframes, will be built by General Steel Industries of Eddystone, Pa., at a cost of $650,000. Deliveries are to begin in February and be completed by March, 1963.

PIGGYBACK

► *New York Central.*—Purchased 100 Flexi-Van flat cars for $1,263,000. The new cars will be built by Greenville Steel Car, Greenville, Pa., with delivery scheduled to begin in December, 1962.

New Facilities

► *Burlington.*—Will construct a 150-ft by 431-ft diesel repair shop at Lincoln, Neb. The steel frame and metal siding structure, costing approximately $780,000, is expected to be completed in two years as part of CB&Q's modernization program at Lincoln.

Capital Expenditures

► *Northern Pacific.*—Will spend $24,657,065 in 1963 for new equipment and improvements. Expenditure of $10,597,350 for new equipment will include $7,415,000 for construction of 600 freight cars at NP's Brainerd, Minn., shops and $1,000,000 for purchase of 10 lightweight baggage cars; maintenance and improvements to existing equipment will cost $970,641. Major 1963 improvements will include $1,053,545 for bridges, trestles and culverts; $991,895 for ballasting 101 miles of track; $6,212,940 for rail and other track material; $1,407,565 for signal and interlocking improvements; $366,300 for communications improvements, including expansion of microwave facilities and greater use of dispatcher-to-train crew radio. NP's announced 1963 capital spending is an increase of $3,702,270 over 1962 capital expenditures.

Philadelphia Begins New Commuter Tests

Two new back-to-the-rails experiments are under way in commuter-clogged Philadelphia. They're designed, in the words of Federal Housing Administrator Robert C. Weaver, to "demonstrate the extent to which people in both city and suburban areas will use railroad commuter service if it is of high quality and attractively priced."

Two-thirds ($3,116,000) of the cost of the two new commuter-train experiments—"Operation North Penn" and "Operation Levittown"—is being borne by the federal government under provisions of the Housing Act of 1961, which authorized a program of loans and grants in the mass transportation field. The remaining one-third will be paid for by the Southeastern Pennsylvania Transportation Compact (SEPACT), a regional agency corresponding to the Philadelphia Passenger Service Improvement Corporation (PSIC), which has carried out similar projects within the Philadelphia city limits.

"Operation North Penn" covers the Reading's Lansdale and Hatboro branches, which serve a fast-growing area in Montgomery County. There are 31 stations on these lines—10 within the Philadelphia city limits, 21 in Montgomery County. Their average weekday load of 17,000 passengers is about 6,000 below 1957's postwar peak. Under the demonstration program, the number of trains will be increased about 20%; zone fares will be established for the first time; most of the station parking lots will be made free; feeder-bus routes will be revised and combined bus-rail fares inaugurated.

"Operation Levittown" will extend and replace a PSIC service known as "Operation Torresdale," which is completely within the city limits of Philadelphia. At present, Bucks County commuters drive to Torresdale to take advantage of lower fares on the Pennsylvania from that point to downtown Philadelphia. Under the demonstration program, these commuters will be picked up at stations at or near their homes in Bucks County, thus making it unnecessary to drive their cars part of the way. The number of trains will be increased by 40%, and as in the case of "Operation North Penn" there will be zone fares, free parking areas, and bus-feeder service.

John C. Kohl, assistant Housing and Home Finance Agency Administrator for Transportation, believes that "the various novel and experimental features" of the Philadelphia project should "make it a source of national interest and vital technical information for transportation planners and operators throughout the country. The design of this program . . . is based on the recognition of the automobile and the bus as essential coordinate means of making existing rail facilities a continuing vital and useful part of the metropolitan transportation system."

Accessorial-Charge Hearings Scheduled

Joint public hearings on several proposals having to do with charges and practices regarding accessorial services will be held at Chicago Dec. 4 and 5 by the three principal railroad territorial rate associations—Traffic Executive Association, Eastern Railroads; Western Railroad Traffic Association, and Southern Freight Association.

The hearings will be held at the Exposition Center, East 23rd Street and the Lake Front, beginning at 10:15 a.m., Dec. 4.

The first subject, having to do with TOFC service, is a proposal that, when a shipment cannot be loaded into one trailer, the lead trailer (or trailers) be loaded as heavily as conditions permit, and that a minimum weight of 5,000 lb be applied to the overflow trailer on each such multi-trailer shipment. It is proposed that free time on trailers in the West be limited to 24 hours. In all territories, it is suggested that shippers may have Plan II trailers returned to them before actual movement has begun, on payment of a $25 charge, with unloading at the expense of the shipper.

Stop-offs for partial loading or unloading would involve a minimum charge of $25 per car in all three territories. A charge of $10.75 per car (where such charge would not involve exceeding maximum prescribed rates) is in view for setting out grain cars for inspection. In the East, the transit charge on grain and grain products would go to a minimum of 3¢ per 100 lb. or $25 per car. Eastern transit charges on forest products would be increased, and a minimum fee of $35 would be levied for transit service on all commodities except grain and lumber.

Other increased charges are proposed for loading and unloading service on domestic freight in box cars; and for blocking and bracing freight in cars at ports. A charge of $5 per day would be established for cars loaded and held for billing instructions from the shipper. Cars "promiscuously" loaded would have their minimum weight set at 18,000 lb, with minimum grain car loading raised to 50,000 lb. Carload export freight would be entitled to one free delivery, with additional deliveries to bear a minimum charge amounting to $30 each.

Eastern railroads are proposing several further increases in accessorial charges (principally on freight handled at ports). Public hearings on these will be held at 1 Park Avenue, New York, beginning at 10:15 a.m., Nov. 20. Eastern roads also propose to increase Plan III and IV TOFC rates by $5 per car for distances up to 400 miles, and $10 per car for longer distances.

Railroaders Used In Heart Research

Section hands have only half as much heart disease as clerks, according to data gathered for a long-range research project in Minneapolis. Some 3,000 railroad employees participating in a University of Minnesota heart research program have been re-examined.

The employees were first examined between 1957 and 1959. Latest finding in the program, which began in 1957 (RA, Feb. 17, 1958, p. 29), indicates that regular exercise does help to prevent heart attacks.

Implementing the UofM research was a study of Railroad Retirement Board records of some 187,000 men between the ages of 40 and 64 who were employed at least 14 years. The study revealed that in the two-year period, 1955-56, active section hands suffered 2.8 deaths per thousand from arteriosclerosis, the most common form of heart disease; active switchmen suffered 3.9 deaths per thousand, and inactive clerks had 5.7 deaths per thousand.

As decisive as these figures appear, they still provide only an indication that exercise helps. According to Dr. Henry L. Taylor of the university's Laboratory of Physiological Hygiene, who heads the study, "Everything we have learned points this way. But we cannot yet be positive."

BLE Urges Kennedy Bill Aid

Members of the Brotherhood of Locomotive Engineers are being urged to prepare—right now—for legislative activity in support of President Kennedy's transportation program as soon as the new Congress convenes in January.

Grand Chief Roy E. Davidson told a BLE meeting in Boston that, by supporting the President's guidelines for a sound national transportation policy, the Engineers "will be continuing to work in the public interest, as well as advancing our own legitimate concern about jobs and more adequate compensation."

Implementing bills died when Congress adjourned, he recalled, and "it will be up to the Administration to renew the proposals" in 1963.

Noting that the brotherhood will be 100 years old next May, Mr. Davidson declared that "I can think of no more appropriate centennial activity than for us to take the lead in advancing the cause of sound national transportation policy and equal treatment for the railroads."

BLE's grand chief was specific as to how members should approach the problem:

"We railroaders—management and employees alike——can go to Congress and say, in all honesty and with great pride, 'We have the most efficient and economical form of transportation ever devised. We are highly productive. We have capacity for low-cost transportation that isn't being utilized anywhere near as it should be. All we seek is the opportunity to compete on the basis of true costs without the picture being distorted by subsidies to our rivals, unequal taxation and rate umbrellas to protect less efficient forms of transportation.'

"I ask all of you to begin preparing for legislative activity when the next Congress convenes. Be prepared to write your representatives and senators in support of bills to give railroads ratemaking flexibility. Be prepared to support adequate user charges so that rival forms of transportation will no longer have their hand so deep in the public till. Be prepared to write letters to the editors of your hometown papers and to talk common sense in transportation policy with your friends and neighbors."

Private Carriage: More Than An Academic Question

Evanston, Ill.—One railroad officer attending Northwestern University Transportation Center's conference on private carriage (RA, Nov. 5, p. 11) put it this way: "We want answers to this problem—and the professors spent two days telling us what the problem *is*." He had just listened to a lot of learned talk about what is involved in the important (and growing) private vs common carriage controversy.

The railroad officer was probably unfair. NU's transportation researchers had done basic sleuthing and gotten some facts about this largely uncharted segment of U. S. transportation. NU's researchers—and the other members of the professorial platoon assaulting the private carriage no-man's land—could only point academic fingers at what they deemed significant. Few of them went beyond their own area of investigation, and then only in tentative and gingerly fashion. It was frustrating for the railroaders, truckers and others representing common carriers. Some of them, obviously, wanted a miracle drug kind of cure for the private carrier malady. It was no less frustrating for the shippers who had come to the conference for verification of their antecedent certainties—that private carriage represented the wave of the future for U. S. transportation. The professors, in short, outlined the already formidable shape of private carriage, questioned the economics and profitability of private carriage without back hauls (with attendant risks involved if private carriage should ever result in the destruction of common carriage), and pointed out the need for basic understanding of the economic, industrial and sociological dynamics behind it.

It was obvious at the conference that the occasional professorial excursion into specifics stemmed from the nature and sympathies of the individual speaking. These occasional glimmerings ranged from a deeply pessimistic ". . . the railroads can reasonably be expected to pass out of existence in the 21st century . . ." (University of California's George W. Hilton), to a rousing call for rail action in ". . . piggyback service, cost-oriented rates and containerization . . ." from the University of Illinois' Kenneth U. Flood, who also thought that ". . . the claim that private carriage is threatening to exterminate common carriage is a lot of nonsense." The Transportation Center's own men were more cautious. While delivering a mass of statistical information on private carriage obtained in a two-year, $125,000 study, they offered no conclusions and/or recommendations.

Underscoring the complexity of the problems posed for common carriers by the private operators was Martin Wohl of the Commerce Department, who spoke to the conference about the need for common carrier research and development. Mr. Wohl, who helped author that curious document, "Technology and Urban Transportation," (RA, Nov. 5, p. 30), was articulate, convinced of his own insight's validity, impatient with the old (". . . if railroads can't keep up, they've got to go . . . ") and, like all good new frontiersmen, friendly and faintly patronizing to the newsmen who questioned him about his view of the need for research on railroads. Mr. Wohl's unfriendly but acute observation is worth remembering as railroads struggle for survival against private carriage and unfair regulation: "Research and development are needed *more* by companies losing out to competition and saddled with onerous regulation. If railroads are serious about surviving, they've got to develop whatever technology will enable them to survive come private carriage, unfair regulation or high water. . . ."

The conference of private carriage at NU's Transportation Center lighted no beacons and pointed no direction for common carriers that could be called a sure thing. It did, however, deliver a mass of information that ought to become central in the thinking of every traffic officer of every common carrier in the country. The professors made it clear private carriage is here to stay—and will always represent an ultimate threat to all common carrier modes—no matter what direction national transportation policy moves in the year ahead.

—John Mitros

J. E. Hamer
Burlington

William G. Carlson
E-L

Madison Rex Waller
L&N

W. C. Stevens
N&W

Joseph R. Neikirk
N&W

Oscar P. Benjamin
Reading

PEOPLE IN THE NEWS

ALABAMA, TENNESSEE & NORTHERN.—**Paul G. Mattingly** appointed assistant general freight agent, Mobile, Ala., replacing **John J. Geekie,** who retired Oct. 31.

ATLANTIC COAST LINE.—**A. R. Savage** appointed resident vice president, Tampa, Fla.

C. F. Westberry, traveling storekeeper, Waycross, Ga. retired Nov. 1.

BURLINGTON.—**J. E. Hamer,** assistant general manager, Omaha, Neb., appointed general manager, Lines West, there, succeeding **J. W. Terrill,** elected vice president, Colorado & Southern (RA, Nov. 5, p. 28).

CANADIAN PACIFIC.—**D. H. Potts** appointed assistant to freight traffic manager, Toronto, Ont., succeeding **J. R. Crossley,** named assistant to general freight traffic manager, Montreal, Que. **T. S. Cuttell** appointed district freight agent, London, Ont., succeeding Mr. Potts.

A. R. Miller, assistant foreign freight agent, Chicago, promoted to foreign freight agent there, succeeding **Stan H. Garrod,** named general foreign freight agent, Vancouver, B.C. Mr. Garrod succeeds **Gordon H. Kerr,** retired.

CENTRAL OF GEORGIA.—**Walter C. Scott,** vice president, Savannah, Ga. resigned Nov. 1 to become secretary, Savannah Sugar Refining Corp.

Fred C. Laing, supervisor, power and rules, appointed superintendent, rules and safety, Macon, Ga. **Thomas N. Burnett,** assistant power supervisor, named power supervisor.

CHICAGO & WESTERN INDIANA.—**David O. Mathews,** president of the **Chicago & Eastern Illinois,** elected president, C&WI. It was erroneously reported in RA, Oct. 22, p. 48, that Mr. Mathews had been elected president and general manager, C&WI.

CHICAGO GREAT WESTERN.—**H. A. Peterson,** superintendent, Oelwein, Iowa, appointed assistant general manager there. **L. R. Gardner,** assistant superintendent, Oelwein, promoted to superintendent there.

DULUTH, MISSABE & IRON RANGE.—**Norman H. Downs** appointed purchasing agent, Duluth, Minn.

ERIE-LACKAWANNA.—**William G. Carlson,** assistant superintendent of motive power, Cleveland, Ohio, promoted to chief mechanical officer there, succeeding **Chester K. James,** retired.

Charles E. Post, assistant secretary and assistant treasurer, Cleveland, retired Oct. 31.

ESCANABA & LAKE SUPERIOR.—**Guy W. Knutson,** general freight agent, Wells, Mich., ap-

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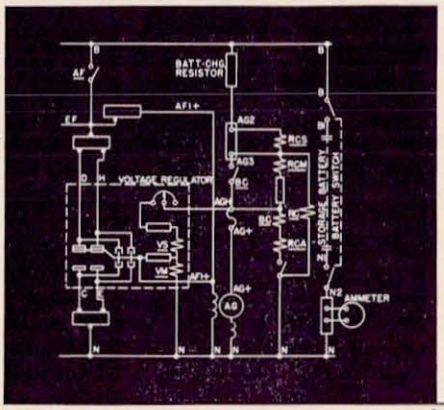

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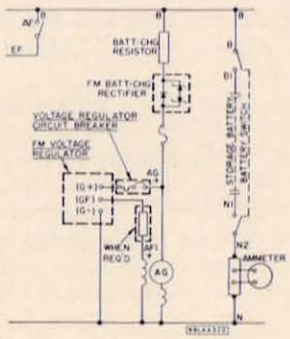

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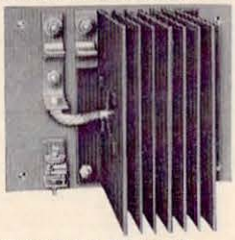

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pointed vice president and general manager, succeeding **Emil Christensen,** who retired Sept. 15.

FRISCO.—William D. Jones, assistant auditor-disbursements, appointed auditor-disbursements, St. Louis, succeeding **Clyde P. Bell,** who retired Oct. 31.

V. L. Wolfe appointed executive assistant, St. Louis. **N. A. Weaver** succeeds Mr. Wolfe as assistant to vice president—operation.

GULF, MOBILE & OHIO.—Lowell L. Deck, district freight and passenger agent, Detroit, Mich., appointed district freight traffic manager there. **Winston A. Gentry** named freight traffic agent, Mobile, Ala.

LOUISVILLE & NASHVILLE. — Madison Rex Waller, formerly Chicago district manager, Union Switch & Signal Division of WABCO, appointed assistant to the president of the L&N.

Donald L. Morris, staff assistant to comptroller, appointed to the newly created position of assistant comptroller-general accounting.

Charles E. Murray has been appointed district piggyback representative, Chattanooga, Tenn. Mr. Murray was formerly freight traffic agent at that point.

Effective Nov. 16, **Paul C. Major** appointed staff assistant to vice president accounting and taxation, Louisville.

MANUFACTURERS.—Lawrence T. Hutchison appointed superintendent, St. Louis, Mo., effective Nov. 1.

NEW YORK CENTRAL.—James R. Sullivan, assistant vice president—freight sales and service, Cleveland, transferred to Chicago, succeeding **Harvey L. Willard,** transferred to Pittsburgh.

NICKEL PLATE.—Fred R. Baker, general agent, Buffalo, N. Y., appointed division freight and passenger agent, Peoria, Ill., succeeding **Harold W. Wittman,** retired. **William Brenton,** traffic representative, Chicago, appointed general agent, Muncie, Ind., succeeding the late **L. O. Ward. Harold A. Peltier** appointed general agent, Davenport, Iowa, succeeding **W. D. Nelson,** recently named general agent, Minneapolis, Minn.

NORFOLK & WESTERN.—W. C. Stevens, superintendent, Roanoke Terminals, promoted to superintendent, Norfolk division, succeeding **C. H. Hale,** transferred to the Shenandoah division. Mr. Hale replaces **W. O. Tracy, Jr.,** transferred to the Radford division to succeed **Charles G. Hammond, Jr.,** recently elected vice president and general manager, **Norfolk, Franklin & Danville** (RA, Nov. 5, p. 29). **Joseph R. Neikirk,** assistant terminal trainmaster, Norfolk, promoted to superintendent, Roanoke Terminals, succeeding Mr. Stevens. **C. W. Dod, Jr.,** assistant general yardmaster, Columbus, Ohio, succeeds Mr. Neikirk at Norfolk.

NORFOLK, FRANKLIN & DANVILLE.—Will establish headquarters at 118 S. Main Street, Suffolk, Va. Personnel of the former Atlantic & Danville will move from Norfolk on Nov. 12.

READING.—Oscar P. Benjamin, assistant vice president—operations and maintenance, Philadelphia, elected vice president—operations and maintenance, succeeding **Robert A. J. Morrison,** retired after over 41 years of railroad service. Abolished Mr. Benjamin's former position.

H. Darrell Koss appointed general agent at the newly opened sales and service office at Room 301, Corbett Building, 430 S. W. Morrison Street, Portland 4, Ore.

SANTA FE.—James G. Goodrich, freight claim agent, Amarillo, Tex., named assistant general freight claim agent, Eastern and Western lines, Topeka, Kan. **William W. Rogers.** chief clerk in the freight claims office, Amarillo, appointed acting freight claim agent there.

SEABOARD.—J. E. Hutto, Jr., resident engineer, named general bridge inspector, Savannah, Ga., succeeding **J. V. Inabinet,** of Jacksonville, Fla., who retired Nov. 1.

SOO LINE.—Terry L. Fisher, formerly editorial assistant, Dental Survey Publications, Inc., appointed assistant to director of public relations, Soo, Minneapolis.

F. L. Kobliska. director, loss and damage prevention, Minneapolis, retired Nov. 1.

SOUTHERN.—Bernard B. Fulk, Jr., corporate accountant, office of corporate auditor, Washington, D.C., appointed assistant treasurer there, succeeding **Herbert B. Porter,** retired.

SOUTHERN PACIFIC.—F. E. Whitcher, general freight and passenger agent, Phoenix, Ariz., promoted to traffic manager. **David D. Powers,** assistant general freight and passenger agent, Phoenix, named assistant traffic manager.

Donald W. Wicks, general agent, trailer-flatcar service, named to the newly created position of manager, trailer-flatcar traffic. **William H. Geare,** chief clerk general in the general freight office, appointed assistant manager, trailer-flatcar traffic.

WABASH.—H. F. Brauch appointed assistant to the president, St. Louis. He will continue as assistant secretary.

Supply Trade

F. Walter Horner, director of engineering, **General American Tranportation Corp.,** has been elected vice president-engineering and technical services.

Russell M. Clinton, Jr., has been appointed manager of industrial relations, Huntington, W. V., plant, **American Car & Foundry division, ACF Industries, Inc.,** succeeding **T. L. Page,** retired.

Lucien C. Williams, formerly sales representative, **National Castings Co.,** St. Louis, has been named eastern district sales manager, **Standard Railway Equipment Division of Stanray Corp.,** at New York. **John E. Earp,** assistant to director of marketing, Stanray, named western district sales manager of the division.

Howard S. Christie, assistant director of sales, national accounts, **Colorado Fuel & Iron Corp.,** has been appointed director of sales, national accounts, effective **Nov. 1,** with offices in both New York and Denver.

Don C. Smith has been named West Coast sales manager, Wood Preserving Division, **Koppers Co.,** Los Angeles, Calif. **Burnett G. Bartley, Jr.,** has been appointed general sales manager of that division at Pittsburgh.

General American Transportation Corp. has reorganized its **Plate and Welding Division** to provide decentralization into four autonomous regional offices. **H. J. D'Aragon** has been named regional manager, Eastern Region, New York; **Ray W. Nill,** Central Region, East Chicago, Ind.; **W. E. Brown,** West Central Region, Sapulpa, Okla., and **Norman A. Pierson,** Western Region, Orem, Utah.

John C. Dwyer has been named manager of transportation industry sales in Eastern and Northeastern regions, Industrial Sales Operations, **General Electric** Co., New York. Mr. Dwyer will be responsible for sales to railroad lines and rail transit systems.

The following appointments have been made in the Transportation Products Division, **National Castings Co.,: Glenn G. Tenney,** manager, and **Robert W. Grandy,** assistant manager, Chicago sales office, with **John F. Hutson** remaining there as assistant vice president; **James J. Schustrich,** manager, Philadelphia sales office; **Swen W. Neilson,** assistant manager, San Francisco sales office; **Robert F. Norton,** assistant manager of mill sales, Cleveland.

O. W. Rider, regional sales manager, Industrial Battery Division, **Gould-National Batteries, Inc.,** Pittsburgh, Pa., has been appointed marketing manager, Eastern area, with the same headquarters.

Harry W. Erikson and **John B. Griffith,** application engineers, have been appointed sales engineers, **Union Switch & Signal Division of Westinghouse Air Brake Co.,** New York district office.

J. E. Rupp has been named manager—headquarters marketing. **Ray F. Deal** has been appointed manager—market research and product planning.

OBITUARY

Frederick A. Beischer, 73, who retired in 1959 as electrical supervisor in New Jersey for the **Lackawanna** (now Erie-Lackawanna) died Oct. 25 in Passaic (N.J.) General Hospital after a brief illness.

John W. Crowley, 60, retired division superintendent, **New York Central,** died Nov. 4.

Harlow Curtice. 69, retired president, **General Motors,** died Nov. 3 at his home in Flint, Mich.

Paul R. Goulett, 66, who retired in 1956 as vice president—operations, **New Haven,** died Oct. 31 in New Haven, Conn.

Harry K. McEvoy, 93, retired general passenger agent, **Chicago & Alton** (now part of the Gulf, Mobile & Ohio), died Nov. 1 at Oak Park, Ill.

Charles L. Rager, 60, Chicago district manager, **Fairmont Railway Motors, Inc.,** died Nov. 3 at his home in Chicago.

V. O. Smeltzer, 61, superintendent of signals, **Santa Fe,** died Nov. 1 at Chicago.

YOU OUGHT TO KNOW

Political climate for railroads will not change at the national level as a result of last week's election. Like its predecessor, the new Congress will be under Democratic control, and the Senate's Commerce Committee and House's Committee on Interstate and Foreign Commerce will have the same chairmen—Senator Magnuson of Washington and Representative Harris of Arkansas.

Quarterly, instead of monthly, reporting of railroad employment and compensation, as proposed by the ICC, is favored by the AAR but opposed by the Railway Labor Executives' Association. The Department of Labor's Bureau of Labor Statistics also made a presentation, saying it needed the data on a monthly basis and would call for monthly reports from the railroads if the ICC went on a quarterly basis. The AAR presentation referred to information received by the Association which indicates that similar BLS data for "most industries" are estimates based on samples. The Bureau's expectation of full reports from the railroads looked to the AAR like another example of the manner in which that industry is required to report statistics in considerably greater detail than other industries.

Enlightened management and labor must communicate with each other to solve the social problems created by the second industrial revolution, Alfred E. Perlman, president of the New York Central, told the American Institute of Industrial Engineers. He said crewless trains illustrate the "disparity between what we are able to do technologically but which we are unable to do because of social factors." He said such trains cannot be operated "because labor contracts and state laws unjustified by today's technology require a specified number of crewmen on each train."

Increased intraplant switching charges have been approved by the ICC, but on a different basis than that proposed by the railroads. The decision disposed of another phase of the general Ex Parte No. 223 rate advance case. The railroads proposed a $3-per-car increase in rates for intraplant switching, but did not propose to apply it to switching of cars billed to move without interruption from or to a line-haul common carrier in connection with prior or subsequent line-haul common carrier movement. The Commission authorized a 20% increase, subject to maxima of $3 in the Eastern district, $2 in the Western district, and $1.50 in the Southern and Pocahontas regions. It also said it will expect the increases to be applied to all intraplant switching.

William B. Johnson, president of REA Express, was reelected president of the National Defense Transportation Association during the annual meeting of NDTA at San Francisco.

"Coal Facts of Life" is the title of a brochure that is being circulated in New York State attacking a proposed $100-million coal slurry pipeline connecting West Virginia coalfields and the East. Published jointly by railroads and railroad unions, the brochure says the pipeline project is economically unsound and would result in "loss of rail jobs and abandonment of some roads."

New York's automatic subway train will continue to operate at least until July 1, 1963. Extension of the experiment, which began last Jan. 4, was reportedly agreed upon by the New York City Transit Authority and the two companies that installed the automatic equipment—Union Switch & Signal Division of WABCO and General Railway Signal.

Railroad suppliers can weather economic storms better than railroads themselves, because suppliers "can diversify . . . railroads can't," Carter Kissell, president of National Castings Co., told the Railway Community Service Committee of Cleveland Nov. 5. "Practically all substantial companies making railroad equipment have found it absolutely necessary, as a matter of survival, to diversify into other fields," said Mr. Kissell. "I shudder to think what our situation would be if by law we were limited to the production only of the same type of goods which we had made in the past and if, on top of that, we were often prohibited from pricing our product low enough to compete with other suppliers. Yet, to a substantial degree, that is exactly the situation in which the railroads find themselves under our present laws and administrative decisions."

"Fastest-ever piggyback service" from Chicago to the Southeast is claimed by the Southern following inauguration of new schedules Oct. 29. The new service, which Southern says is "faster than any other now in effect or currently being publicly discussed," provides next-day and second-day delivery on shipments originating in Chicago and points north.

Rock Island's eleventh annual "T-Bone Special" moved 60 carloads of western Iowa prize beef into the Chicago stock yards last week. Special Pullman accommodations were provided for some 90 cattlemen who accompanied their animals on the overnight trip from Audubon, Iowa.

Establishment of a scheduled international service for containerization and consolidation of LCL and freight between the Midwest and Europe has been announced jointly by Morris Forgash and T. G. Newman, presidents, respectively, of United States Freight Co. and Container Transport International, Inc. The new service will permit LCL to move from inland points to European cities in CTI containers via Universal Carloading & Distributing Co., a U.S. Freight division.

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Mr. Webb— Pro and Con

A fully enlightened Interstate Commerce Commission—alert to changes in the transportation industry—would make frequent and basic changes in the transportation statutes unnecessary. Specifically, the law as it stands allows the ICC wide latitude (for example) in mitigating the severity of regulatory restrictions when competition has developed to the point where it fully protects the public against monopolistic practices.

The whole trouble with railroad regulation—and the consequent urgent necessity that the statutes be modernized—has been that, all too frequently, the ICC has continued to apply outmoded restrictions, in a period of intense competition, with the same rigor as in the era of railroad near-monopoly.

A couple of weeks ago on this page we disagreed with the suggestion Commissioner Charles Webb made in a recent speech—that President Kennedy's recommendations for reduced regulatory restraints in transportation be discarded. We observed that Mr. Webb had, apparently, fallen for the familiar argument that transportation legislation can be revised only to the degree that the various modes agree among themselves on the proposed changes.

Acceptance of this conclusion would mean, in effect, that a litigant—having won a verdict after prolonged court proceedings—could, nevertheless, expect no help from the public authorities in enforcing the verdict. If this is the kind of justice we have in the U.S.A., then all issues, no matter how complex, will have to be decided by popular vote.

This country's chaotic transportation situation has been studied, officially, by competent and disinterested experts several times in recent years, with essentially similar recommendations. The latest such report, by able advisers, is embodied in the President's transportation message to Congress of last April 5. As we understand Commissioner Webb's speech, he believes the recommendations in that message are foredoomed to defeat. That is just another way of saying that the faction with the most votes will dominate the outcome.

Is there, then, no overriding public interest in a logical and economic solution to controversial transportation issues—which can be adopted and enforced despite the objections of any or all of the contending parties?

If there is no such dominant public interest to be ascertained and enforced—then why did President Kennedy bother to study the problem and make his recommendations? Why the hearings before House and Senate Commerce Committees? Why not just send a letter to the truck and waterway associations, and to the AAR and the unions involved, saying: "Kindly advise what transportation legislation you want, enclosing a certified list of the number and location of the votes your organizations control."

While Commissioner Webb is a defeatist as far as adequate statutory reform in dealing with national transportation policy is concerned, his attitude toward regulatory realism in modernized interpretation of existing statutes is perceptive and heartening. He wrote ICC's majority decision (from which there were no outright dissents) in "Coal-Southern Mines to Tampa and Sutton, Fla." (I. & S. No. 7179), which allows several southern railroads to make rates on coal which would be below cost of movement—if these costs were calculated according to the routine "From A" formula.

The Statutes Are Not Rigid

Instead of enforcing rigid adherence to this formula, the ICC in this instance gave some weight to costs as calculated on the "added traffic" basis. It also paid heed to cost calculations which did not include return on investment. The decision was that railroads (as well as their customers) would be better off financially if these rates were approved than if the rates were disallowed. In short, the regulatory decision in this case produced the same results that sound economic and business policy would have produced. And the discussion in the decision of the nature of railroad costs is as enlightened and as enlightening as has ever been seen in an ICC report.

The decision quotes a Supreme Court decision by Justice Frankfurter which enjoins the ICC to be *"responsive to the dynamic character of transportation problems."*

If the ICC were to observe that admonition to the full, it would permit railroads to engage widely in barge and truck transportation; it would permit some form of "agreed charges"; it would deny no basis of rates which would leave the carrier better off with them than without them; and it would insist on no rate relationships (as between localities or commodities) which were inconsistent with maximum carrier earnings. Moreover, given the will to do so, the ICC could largely mitigate the injustice done to railroads by Sec. 4.

Commissioner Webb as a practitioner of regulation is a perceptive realist. If the viewpoint of the ICC in I. & S. No. 7179 were to become dependably dominant, then the urgent need for revision in regulatory statutes would diminish proportionately. Meantime, the need for enactment of the Kennedy program remains with us, and will continue until railroad traffic and earnings take a sharp and dependably permanent upturn.

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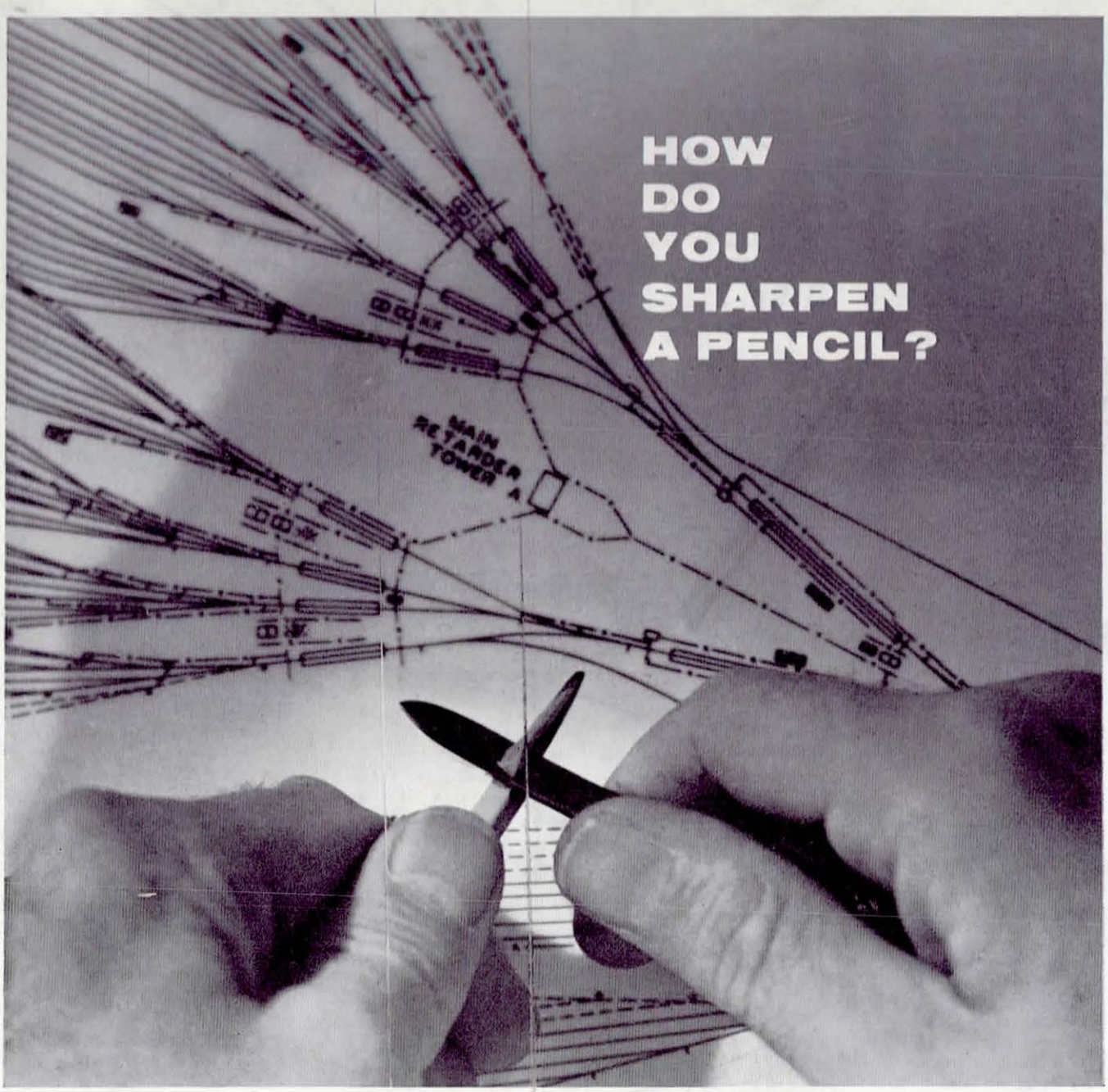

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